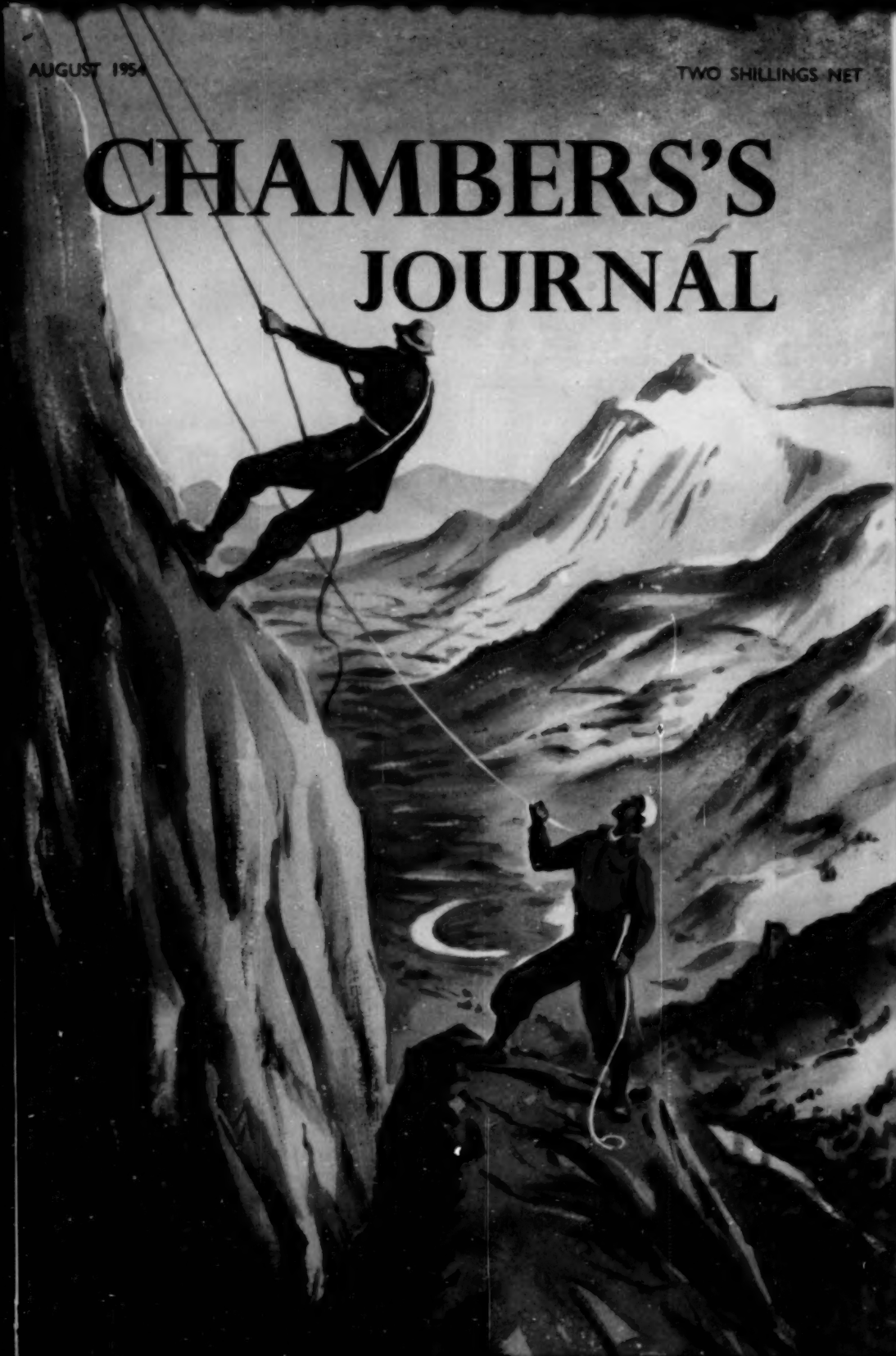


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CHAMBERS'S DICTIONARY

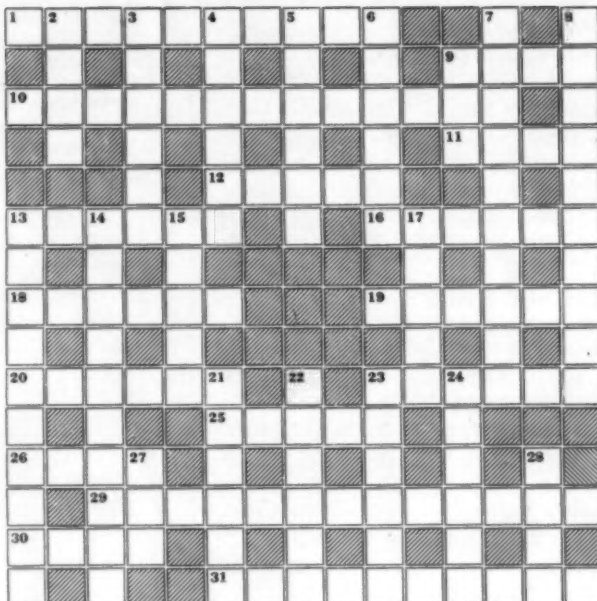
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Composed by A. M. MACDONALD

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The Gentle Art of Sandy the Bus

ANDREW PATON

WE call him Sandy the Bus. This is to distinguish him from Sandy the Post, Sandy the Ferry, Sandy the Shop, and Sandy Red. You see, there are an awful lot of Sandies on the island and, since they are all McVarishes as well, we have to have some way of knowing who we are talking about.

Even at first glance you can tell there is something different about Sandy. He has an atmosphere. A sort of Celtic panache, if you can imagine such a thing. He seems to send out little telepathic messages of friendliness, and his eyes are such a pale, clear blue that you imagine you can see right through them. They always seem to have a faraway look with a half-smile in them.

The people of Shanna all have this quality in varying degrees, of course, and when strangers talk about a 'Shanna man' there is a sort of awe in their voice. But in Sandy the Bus it is so strong that it really amounts to a pure distillation of the very spirit of the place.

Sandy is of a comfortable size and stoutness. There is no sense of hurry in his make-up and,

whether he is walking, talking, drinking, or driving, he performs with a slow, effortless, and very soothing deliberation, rather like that of elephants.

The bus, which was born in 1934 as the result of the mating of a lorry chassis with a bus body, seems to have developed a similar personality to its master in the same way that a dog will do. It never hurries, it cannot be bullied or flustered, it looks comfortably worn and yet immaculately clean, and it never breaks down except to suit the needs of Sandy.

It is the only bus on the island, so it is very important for the life of the place. It meets the boat when it comes in three times a week from Oban, and runs a service round the island. It carries milk and newspapers, bales of tweed, fresh salmon, boxes of day-old chicks, spare parts for ploughs, and so on. It takes us to church on Sundays, carries us to weddings and funerals, takes the summer visitors on tours, and sometimes acts as a taxi or an ambulance.

Somewhere in the files of the Traffic Com-

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missioners is a copy of the timetable that Sandy is supposed to follow. But, as he says himself: 'The machine was made for man—not man for the machine, and anyway the Ministry is a comfortable sort of distance away.' So he runs his bus just as the needs of the day—or the hour—dictate, or as the whim seizes him. Not that he is irresponsible or merely looks after his own interests. No, on the contrary, it is a serious attitude toward other people's needs that makes him deal with each day on its own merits.

THE day on which all the fun started found the island lying like a small raft on a calm, blue tropical sea. The stocky little *Linnet*, her cargo discharged, lay at the pier breathing contentment in lazy puffs of white smoke. That section of the population which had come down to greet her arrival—about ninety per cent—still lazed around reading the newspapers she had brought.

Sandy, having loaded all the parcels and milk into the ample boot of his bus, stood leaning on the shining radiator and surveyed the scene. He should have been away twenty minutes ago, but he always felt that there would have been something a little brusque and rude in setting off exactly at the scheduled time. He would have been thinking all the way about the people who had come along a few minutes late and missed the bus.

On the surface, the scene was one of almost Arcadian serenity. Everyone, from the skipper of the *Linnet* to the schoolboys fishing from the end of the pier, seemed to be at peace with the world. Days like this came seldom to Shanna and one had to make the most of them.

It was only when the office-door of the West Coast Seaweed Utilisation Company opened and George Marshall stepped out and looked around that a different note was struck. For there were the makings of an old-fashioned sneer on Marshall's face, especially when he looked at Sandy and his bus. He glanced at his watch, and I could see him give a sort of sigh.

Poor Marshall, the island and its ways were slowly driving him mad. He just wasn't the sort that can adapt itself to the life of Shanna. He was rather of the chartered-accountant type, if you know what I mean. He had a sharp face and a narrow head and, although his nose was exceptionally long, it

gave you the impression that it had not stopped growing yet. And he was always poking it into things—all sorts of things that had nothing to do with seaweed utilisation. Especially the arrival and departure times of the boat and of Sandy's bus, the delivery of the mail and the milk, and the times at which people started work.

I had advised him several times to pack his bags and get out before the whole business got him down, but he was a determined sort of chap and seemed to imagine that he had been sent by Providence to rescue the island from its backward ways.

He relaxed a bit when he saw Sandy stirring and showing signs of getting into the bus. But he stiffened again when he saw a girl who had come off the boat approach Sandy and start talking to him.

She was a nice-like sort of girl, about seventeen or eighteen, and with that eagerness of people who are always discovering good things about the world and its people. Just the sort, I thought, that old men like Sandy (or myself) can never resist. She wore flat-heeled shoes and a long, shapeless sort of cotton frock and had a rucksack on her back. Her eyes had a humorous, round innocence as she said to Sandy: 'Pardon me, but are you a McVarish?' I could tell from the way she said 'pardon' that she came from America.

'Yes, I am that,' said Sandy, seeing in this opening gambit the possibility of an interesting chat.

'Oh, that's just dandy!' she exclaimed. 'Y'see, my ancestors were McVarishes from Shanna, and I want to find out just everything I can about them while I'm here.'

'Everything?' said Sandy.

'Well, maybe that's too much to expect in a couple of days, but I specially want to visit one of the old villages.'

'And would there be any particular one?' Sandy asked.

'Yes, the one that Torquil McVarish left a hundred and twenty years ago. He was my great-great-grandfather.'

'And would you be knowing the name of it?'

'Well, no, that's just the trouble, I don't.'

'M-m-m, it will not be so easy finding that one, then. Is there nothing you would be knowing about it?'

'Yes,' she said, 'there is something, but it's not very much.' My dad got a sort of hint from his dad, and he heard it from his mother, and it was something about it being the place

THE GENTLE ART OF SANDY THE BUS

where time has no slaves and peace has no foes.'

I could see Sandy's lips moving as he translated this into the Gaelic, and he looked at the girl like a teacher who has heard a pupil voice for the first time an idea of his own. 'Come in,' he said excitedly, 'and sit beside me.' She picked up her rucksack, boarded the bus, and sat in the front seat next to Sandy's own. As he started up the engine and set off, Marshall looked at his watch, and I could see his jaw muscles fairly rippling. The bus was half-an-hour late.

WELL, that was the last that was seen of the bus or its passengers for quite a while. It simply disappeared. About four o'clock in the afternoon a call came through from the Post Office at Bracadale asking why the mails hadn't arrived. And then the hotel at Scanera rang up to see why the milk and papers hadn't come yet.

We all thought Sandy had just had a breakdown, until Hector McVey came in on his bike all the way from Bracadale and said he hadn't met the bus anywhere on the road.

A party went out, of course, and looked over all the cliffs that the road skirted, but never a trace was seen of Sandy's bus. George Marshall had appointed himself organiser-in-chief of the search, and when word came back that the bus was not to be seen, his impatience seemed to be mounting to new heights. 'But it *must* be there!' he exclaimed. 'A bus can't just disappear like that! The trouble is, they're so damned lazy they're not searching properly. We'll just have to start all over again from each end and examine both sides of the road inch by inch.' And that is just what he started bustling everybody into doing.

Poor Marshall! We were about five miles out from the village, looking over all the dangerous cliffs and unprotected bits of the road, when we became aware that the bus was coming along at its usual gentle, unhurried pace toward us. It stopped, and Sandy pushed his little window open. 'Well, boys,' he said, 'what is it that's going on to-night?'

Marshall's face took on a sort of stiffness and went very white. He was making terrible efforts to control himself, but you could see the pulse beating in his temple. 'Where have you been?' he forced out between very hard lips.

'Och, we made a wee bit detour,' said Sandy.

'Didn't we?' he added, turning to the half-dozen passengers who were sort of smiling to themselves.

'Oh, yes!' said the American girl, putting her face close to the cab window. 'And it was the most wonderful thing. Have you ever been to Ballevullin?'

'Ballevullin!' exclaimed Marshall.

'Well,' said Sandy, 'I would never have forgiven myself if I had let the lassie go back to New York without having seen the place her ancestors came from. But maybe I'd better be getting along now or Kirstie will be wondering where I have got to. Are you coming, boys?'

I took one of Marshall's arms, and Sergeant Henderson took the other one, and we hurried him into the bus and along to the back seat before he got time to explode.

As for the girl, she was completely intoxicated by her experience. She talked the whole way back to the village, telling us all about Ballevullin and the magic it had exercised on her mind.

There had been some sort of standing-stone there, and a well close by. Sandy had gathered them all around the stone and told them about the ancient life of the village and about the tales concerning the stone and the well. And the gist of it all was that the people of Ballevullin had possessed a secret—nothing less than the secret of contentment.

Then Sandy had her drinking out of the well and walking round the stone three times repeating some Gaelic rhyme or other, and going to the top of a little hill to face east before she repeated another rhyme. And when it was all over he had told her that she could now take the peace of Ballevullin back to America with her. 'And do you know what?' she said. 'It's true. I can feel it right here inside me. But the only thing is—I don't *want* to go back to America!'

Well, we arrived at the village then, and she and the tourists went off to the hotel after having given very warm thanks to Sandy. By this time Marshall's anger was no longer explosive, but had become a sort of quiet, controlled menace that I didn't like at all. He looked coldly at Sandy and said: 'I'm not going to waste any more words on you. This whole business is going to be reported to the proper authorities.'

Sandy was quite taken aback at this. 'Och, there we are now, Mr Marshall,' he said, 'I've gone and upset you again.'

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'Upset me!' Marshall nearly lost control again. 'You've upset everything and everybody! The mails, the milk, the passengers, the Post Office, the timetable, the parcel delivery. You've upset the whole basis of civilised life on this island!'

'Och, surely it's not quite as bad as all that.'

'It's worse! If this sort of thing spreads, it will lead to the ruination of the country, and I'm not going to stand for it. You've gone too far this time, McVarish, and you're going to pay for it!' And with that he jumped off the bus and marched away.

Sandy looked puzzled. 'You know,' he said, 'he is a nice sort of chap, but he has a funny way of looking at things.'

A WEEK went by, and I thought the whole thing had blown over. The American girl had returned to the mainland to continue her tour, the steamer had come and gone in its quiet way, and the August sun had continued to shine. Marshall had lain very low.

One day, however, that mysterious sensation ran through the island which always tells us when something unusual is going to happen, or when officials and other unwelcome visitors are about to arrive. An even more sharp-eyed crowd than usual watched the *Linnet* as she tied up at the pier, and there, sure enough, was something that had the smell of trouble about it. Leaning on the rail was a tall man in a black hat. He carried a brief-case.

'A Ministry Man!' the whisper went round. We were used enough, in all conscience, to the visits of Ministry Men. In fact, old Hugh MacAulay, the schoolmaster, used to tell the children that every time they breathed a Chinese died and a Ministry Man was born. But this was one we had never seen before, and he was being met by Marshall. The pair of them disappeared into the hotel, Marshall talking to the other one in his eager, head-nodding way.

We all broke into a session of speculation, and quite a crowd gathered round Sandy, who was quietly going about his business of putting milk and newspapers into the boot of his bus. 'Och, why should we be worrying ourselves,' he said. 'The man is just here to see that the laws of the land are observed and that everything is run with the greatest efficiency.'

Well, right enough, Sandy has a way of saying the simplest things that sends every-

body into roars of laughter. 'But it's you he's after, Sandy,' said the Gannet, who never quite follows the workings of Sandy's mind.

'And what would he be after me for?' Sandy asked. 'What have I done that a Ministry Man should pay a costly visit to the island of Shanna?'

He put the last of the parcels in, had a quiet draw at his pipe, collected the fares from his three passengers, and set off a comfortable twenty minutes late.

When he got back in the afternoon Marshall and the other man were waiting for him. They had waited for quite a time—twenty-four and a half minutes by Marshall's watch. When he did come dawdling in, sitting sort of sideways in the driving-seat as he always did, he had only one passenger—old Angusina MacDonald. Sandy gave her a hand as she slowly eased herself down from the bus, and then handed her her basket. She looked up at him. 'But are you sure, Sandy?' she said.

Sandy gave her a smile. 'Och, Angusina,' he said, 'what are you worrying about? Many's the time I've run a wee bit short of money myself. Anyway, you can maybe let me have half-a-dozen eggs sometime.'

'Well, thank you, Sandy. Cheerio!'

'Cheerio.'

'You see,' said Marshall, 'that's another thing—barter! He doesn't even charge the right fares!' They closed in on Sandy then and said they would like to have a little chat with him.

'It will be a pleasure, gentlemen,' said Sandy, 'but I hope you will let me put her away for the night first of all,' and, in spite of Marshall's impatience, he slowly went about the business of reversing his bus into the little wooden garage and seeing to its oil and water needs before he finally turned to them and said: 'Well, that's that. She's getting a wee bit touchy in her old age. I've just got to pet her a bit. Now, what about having our ceilidh in the hotel?', and, without another word, he started walking toward the white-washed inn. The other two, after a moment's hesitation, followed him. You could see that they weren't very pleased at his having taken the initiative.

MIND you, Sandy didn't have what you would call an easy time once they were all indoors and seated at tables. I suppose they felt more at home then, as if they were

THE GENTLE ART OF SANDY THE BUS

at desks, and they went in to the attack. They were in the lounge, and from the public bar you could hear every word they were saying, which was very convenient. I don't think I can remember the bar ever having been so quiet.

By the time I managed to get into position they were hard at it, and the chap from the Ministry, who was a Mr Dalmeny and seemed a much more patient sort of body than Marshall, was saying: 'But, really, Mr McVarish, you mustn't do things like that. You have to keep to the route and the timetable and not go wandering all over the countryside because of some whim or other.'

'But why?' said Sandy.

'Because . . . well, because you've just got to. A timetable and a route are granted by the Licensing Authority and it is the law of the land that you must keep to them. Now here is a copy of your timetable as it was granted by the Traffic Commissioner in 1938, and I want you to stick to it.'

'Oh, that!' said Sandy.

There was a pause, and then the Ministry Man said: 'What do you mean when you say, "Oh, that!", Mr McVarish?'

'Och, that was just on paper,' said Sandy.

'I don't quite follow. Do you mean that it bears no relationship at all to the runs you actually carry out?'

'Well, that is one way of putting it,' said Sandy.

Mr Dalmeny obviously wasn't used to this kind of thing. 'But you must keep to the official timetable,' he said. 'That is a matter of great importance to the travelling public. If you feel, of course, that certain changes are necessary, well, you can apply for them. But when they are granted they must be put on paper and adhered to.'

'Och, but everything cannot be put on paper,' Sandy protested. 'Life is too complicated for that. At least, life on Shanna is.'

Marshall couldn't resist chiming in then. 'There is nothing that cannot be put on paper, McVarish,' he said, 'nothing at all. Surely if the movements of Greater London's transport can be put on paper it is not out of the question to do the same for the bus service on Shanna!'

'Oh, but it is not so easy as you think,' said Sandy. 'London and Shanna are two very different places.'

'Well, I suggest we put our heads together and try it,' said Mr Dalmeny. 'Surely be-

tween the three of us we should be able to pin everything down. And once that's done you simply need to make a fresh application and when it is granted—stick to it.' There was a rustling of paper and then he went on: 'Now, let's start with the original timetable and progress from there. This is it, isn't it, Mr McVarish?'

'I suppose so,' said Sandy. 'I was never very good at reading these things anyway.'

'Well, it is simple enough,' said the man from Edinburgh. 'It shows a run round the island on Tuesdays, Thursdays, and Saturdays, which are the days on which the steamer calls, and the bus is timed to leave half-an-hour after the arrival of the steamer—that is, at 10.30 a.m. Can we agree on that first of all?'

Sandy scratched his chin. 'Well, no, not quite,' he said.

'Why not?'

'Well, you see, on Tuesdays the boat calls at Daurna and Dinna before she comes here, and so she doesn't arrive until twelve o'clock. And then again on Saturdays she just calls at Daurna before she comes here, and so she arrives at twenty past eleven. It is only on Thursdays, when she calls here first, that she arrives at half past ten.'

'Well,' said Mr Dalmeny, 'so long as we know, so long as we know. Now, let's start with a fresh sheet of paper and just put that down.' There was a short silence and then he said: 'There we are now. That's that!'

'But, of course,' Sandy went on, 'she is usually late, for there is often a big cargo for Dinna or some cattle to be got aboard at Daurna, or sometimes the London train has been late in arriving in Oban and she has had to wait for that.'

'Fair enough,' said the Civil Servant. 'We'll put an asterisk above each of them and a note down below to the effect that the bus awaits the arrival of the boat.'

'And then, of course,' Sandy said in that innocent way of his, 'the steamer goes on to its winter timetable on the first Monday in October, and that alters things again.'

'And what exactly does that involve?' asked Mr Dalmeny.

'Well, on Tuesdays it arrives at nine in the morning, on Thursdays at ten o'clock at night, and on Saturdays at four o'clock in the afternoon.'

'Right! We put that down, with a "W" above the winter runs and an "S" above the

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summer ones, and down below we give the dates. That's simple enough, isn't it?"

'Yes,' said Sandy, 'but don't forget that during the winter the boat goes to the Fresh-nish Isles on the second Tuesday of every month, and so she can't call here, and the bus doesn't do the run on those days.'

There was a brief silence and then the sound of a deep breath being taken in. 'I see. I see,' the patient Mr Dalmeny went on. 'Well, let's tackle that now. We just put an "X" above that and a little note down below. There we are now,' he said.

'**A**NYTHING else?' asked Mr Dalmeny. 'No, I think maybe that covers the boat runs,' said Sandy.

'Good. Well, let's have a look at the evening run that's marked here. It leaves at six, goes round the island, and is due back at seven. Surely that is straightforward enough?'

'Well, it's all right on a Wednesday,' said Sandy, 'but certain modifications have had to be made on the other nights.'

'I see. Well, let's hear them.'

'Well, on Monday the Women's Rural Institute meets, and the six o'clock run is a wee bit too early for them, so I have made it half past six. And then on Tuesday it is the Boy Scouts, and they like to be earlier, so it is half past five on Tuesdays. On Thursdays it is the Masons, and they don't like to start until eight o'clock, so the run leaves at seven. On Friday the Film Guild give a show at half past six, so the run is at half past five, the same as on Tuesdays. On Saturdays it depends whether the shinty match is here or at Bracadale, but usually I leave about half past six. Of course, if there is no shinty at all. . . .'

'Now, now, now, Mr McVarish,' pleaded Mr Dalmeny, 'please don't go quite so fast. Let's just try and digest that first.' He got Sandy to go over it all again slowly and he noted it down. After that he dealt with the last run at night. When they came to Saturday night there was a slight misunderstanding.

'It's a wee bittie later on Saturdays,' said Sandy, 'for I wait till everybody is out of the bar.'

'Well, what time do you generally get away?'

'Oh, maybe about a quarter to eleven,' said Sandy.

The other man was astonished. 'But I thought the pubs shut at nine o'clock here!'

he exclaimed, and a lot of nudging went on in the bar as he said it.

'Och, well,' said Sandy, 'so they do in a manner of speaking. But, of course, a great deal of judgment has to be used. You know how it is yourself. It all depends on how things are going, and it always seems such a pity to break up a social occasion just when everybody is at his best—doesn't it now?'

Marshall couldn't contain himself at this. 'You see what I mean, sir!' he exclaimed. 'They disregard the licensing laws just as much as they do the Road Traffic Act! They disregard everything! They do just as they like!'

The Civil Servant coughed, and Sandy swears that a new light appeared in his eye at that moment. 'Well,' he said, 'I'm afraid that the whole question of the liquor licensing laws is rather out of my province—at least, professionally. Now, about this run—you say you generally leave about a quarter to eleven, Mr McVarish?'

'That's right,' said Sandy.

'Well, we'll put that down,' said the other. 'And now let's tackle the rest of the runs.'

THEY went at it then for the best part of an hour, and Mr Dalmeny checked everything over and over again, and put it all down on paper, and he seemed to be a nice sensible sort of chap, in spite of coming from a Ministry. In the end he said: 'Well, that seems to be it, and very thirsty work it has been. I suggest we all have a drink.'

Sandy was just beginning to second this proposal, when Marshall said: 'Aren't you forgetting that McVarish has another run to do?'

'Oh yes, of course,' the Ministry Man said quickly. 'Yes, I was quite forgetting. It would be quite irregular.'

'Oh, but there is no need to be worrying,' said Sandy, 'for the Boy Scouts do not meet on the third Tuesday of the month and so I do not do an evening run then. And this is the third Tuesday of the month.'

'Splendid!' exclaimed Mr Dalmeny with a surprising display of enthusiasm. 'Then you'll be able to join us in a drink. Just reach over and ring that bell, will you, Marshall, while I jot this down about the third Tuesday of the month.'

He ordered three whiskies, and when they had drunk them he said: 'Well, we have

THE GENTLE ART OF SANDY THE BUS

everything down on paper now, and the next thing will be to go out on some of the runs and see how it all works out in practice.'

'Exactly!' said Marshall.

'Let me see, now,' said Mr Dalmeny, 'there is no steamer run to-morrow. . . . I think I'll come out on the four o'clock school run.'

'There's a school run at eight o'clock in the morning,' said Marshall helpfully.

'Yes, I can see that, Marshall, but I don't think I'll go on it,' the visitor said rather severely. 'I shouldn't like to disturb the hotel staff too early in the morning. I shall go on the four o'clock run.'

Marshall sighed and went off, back to his office to make up for the time he had been away. When he had gone, Mr Dalmeny seemed to speak suddenly, as if a weight had been taken off his mind. 'Well, now,' he said, 'how is the fishing this year?'

Sandy was silent for a moment, weighing things up afresh. His eyes met the other's and one of those silent exchanges took place which are the foundation of true understanding. 'A dream,' he whispered, 'a beautiful dream. There has never been anything like it as far back as the oldest one here can remember.'

The Ministry man looked as if he could have wept. 'And to think of my rod lying there in Edinburgh—useless. But, of course when one is on a business trip, and especially dealing with someone like Mr Marshall . . . a good chap, mind you, but . . .'

'There is no need to worry at all, at all,' said Sandy. 'If you will simply get into the eight o'clock scholars' bus and sit in the front seat, just at the back of myself, and look down at your feet you will find all the tackle you will be needing. And if you will get off the bus where I tell you, you will find yourself at a loch where the fishing is such that . . . well, just you try it and see. And I'll take a quiet wee run out and bring you back in time for your appointment with Mr Marshall and myself at four o'clock.'

'Ah,' said Mr Dalmeny.

AT four o'clock the following afternoon Sandy's bus stood up bravely to an assault put in by twenty-two newly-released schoolchildren who all wanted to sit in the back seats. The initial struggle lasted about five minutes, and then they gradually settled down, and comparative peace reigned as

Sandy collected fares and examined season-tickets.

Marshall sat with Mr Dalmeny in the front seat and fairly bristled as his watch showed more and more minutes past four. His impatience was made all the greater by the imperturbable calm of the man next to him—a man sent specially by a great Ministry, and here he was, sitting with a faraway look on his face and even the beginnings of a smile on his lips, and the bus he was sitting in should have been away seven and a half minutes ago. For the fourth time he nudged Dalmeny and pointed to his wrist-watch, but the only response he got was a nod, and not even a vigorous nod—in fact, a very absent-minded nod.

They got away at ten past four, and Marshall noted the fact in a little notebook which he kept on his knee.

For the next twenty minutes the bus pursued its normal course. A fight broke out in the second-back seat and Sandy had to stop, heave himself out of his seat, and go back to quell it. Every now and then they would stop to let a boy or girl off at some isolated croft, or for Sandy to deliver a parcel. They drove past beaches of silver sand which the children didn't even notice, and by dark little lochs which seemed to be the only things that kindled any animation in Dalmeny. At one of them he nudged Marshall excitedly. 'Oh, look, man!' he exclaimed. 'Can you not just see them rising to a well-cast fly in that wee loch!'

'I'm afraid not,' said Marshall. 'I've never been much of a one for fishing. Er . . . we are now running eleven minutes late.'

'Yes, yes, of course,' said Dalmeny, 'most irregular. Just go on keeping a note of it, Marshall, that's a good chap. You are being most helpful.' And then he went on staring out of the window.

Soon after that Sandy stopped at a cottage and went in to deliver a parcel. He came out ten minutes later wiping his lips and flicking oatcake crumbs from his jacket.

Marshall was fuming, and yet at the same time he was glad of this practical demonstration of the correctness of his complaints. 'You can see now why I wrote to the Ministry!' he said. 'Twenty-one minutes late already! Imagine the sheer . . . inefficiency of it, the flagrant breaking of the law—stopping for a cup of tea in the middle of a run!'

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'Yes,' said Dalmeny uncomfortably, 'I'll have a word with him when we get back.'

'Poor soul,' said Sandy as he took his seat again. 'It's not much company she sees, and she would have been real upset if I had refused a cup of tea.'

Marshall gave a kind of snort and made another note in his little book.

BY the time the bus had passed Scanera, there were very few children left on it and Sandy was driving along at a steady twenty miles an hour, when suddenly they all became aware of a figure cycling furiously along a small side-road and waving for the bus to stop. Sandy drew up at the road-junction and waited. The figure turned out to be Alec MacCallum, who had a croft near Rudha Carach point. 'Oh, it's glad I am I managed to catch you,' said Alec. 'Do you think you could come down to the point and pick up four chaps who have got stranded?'

Sandy was just going to reply, when Marshall butted in. 'Certainly not,' he said. 'It is quite out of the question for the bus to deviate from its route, and, anyway, we are running twenty-one minutes late already.'

Alec hadn't noticed Marshall until he spoke. 'Oh, it's yourself, Mr Marshall,' he said. 'Now isn't that just the hand of Providence itself, for it is your own men that are stranded and it is the seaweed lorry that is broken down.'

Sandy switched off his engine and there was a sudden profound silence. The expression on Sandy's face was bland and innocent. Mr Dalmeny looked puzzled for a moment and then a faintly-sly expression crossed his face. Marshall just stared at Alec MacCallum.

'Roddie MacDougall thinks it is the distributor,' said Alec. 'But, on the other hand, Sam Cameron is of the opinion that it is maybe something wrong with the cylinder-head gasket. But, in any case, she won't go and they were thinking the only way to get home would be if Sandy came down with his bus.'

'I thought MacDougall was a mechanic,' snapped Marshall. 'Can't he do anything at all?'

'Well, he is a mechanic in a sort of a way,' said Alec, 'but he is maybe more of a bicycle mechanic than a motor mechanic.'

There was another silence. Sandy looked straight ahead through the windscreen. Dalmeny concentrated on the toes of his

shoes. Marshall searched in his mind for a formula.

'It wasn't so much the inconvenience to themselves they were thinking about,' Alec went on, 'but the expense to the firm. There are four of them, you see, and at half-a-crown an hour, which doesn't even allow for overtime, it would be quite a lot after four or five hours.'

'Yes, yes, yes, I know all about that!' said Marshall impatiently. 'How far away are they?'

'Three miles. Right at the point.'

'They would be!' Marshall muttered, and then he didn't appear to know what to say.

Dalmeny let the silence continue until the air in the bus seemed thick and heavy with indecision, and then he said: 'Well, Marshall?'

There was a slight pause and then Marshall said: 'You'd better ask McVarish.'

'Well, Sandy?' said the Ministry Man.

'Of course, we are running twenty-one minutes late already,' said Sandy.

'True enough. And I suppose there will be some people waiting for you along the road?'

'Oh, yes. There's bound to be some.'

'And how much later will we be if we go down to this Point?'

'Oh, about another twenty minutes. It's a bad road.'

'I see. Well, what do you say, Marshall?'

'I leave it entirely to McVarish and you,' said Marshall. 'But I should like to point out at the same time that the West Coast Seaweed Utilisation Company is the main, and in fact the only, employer of labour on the island, and anything that is done to help it will at the same time help the whole community.'

'I see,' said Dalmeny. 'Well, a nod's as good as a wink. Left turn, Sandy!'

With a quiet smile and a little sigh of contentment, Sandy started up his bus again and turned down the rough little road that led to Rudha Carach.

ON the way back, a good forty-five minutes late, Sandy was quietly humming a Gaelic air. Marshall was silent. Dalmeny was in a highly-communicative mood. 'Yes, Marshall,' he was saying, 'I really think I shall have to stay at least another week to get the whole matter in true perspective. After all, it's not quite so simple as we thought at first—is it, eh?'

Marshall was silent.

'It is rapidly becoming clear to me that running a bus service on an island like this is more of an art than a science. Don't you agree, Marshall?'

Marshall seemed not to hear him.

'I mean, there are so many decisions that only the man on the spot can make. After all, how could that little detour to-day have been covered in a timetable or controlled by someone in Edinburgh or Glasgow or London?

And yet it was a sensible sort of thing to do, wasn't it? Don't you agree, Marshall?'

Marshall grudgingly nodded his head.

'Of course it was; and all sort of things like that are bound to arise. What I mean to say is, you just can't put *everything* down on paper, Marshall, can you?'

Poor Marshall. A couple of months later he left to go to a new job in London. Life is so much simpler there, he finds.

September First Story: *The Capitalists* by John Moore.

Thalassa !

ARTHUR BARTON

EARLY on a fine summer morning you could see them go by the end of our road, parties of ragged, tousled-headed boys, each with his bait wrapped in grubby newspaper and a bottle of water sticking out of his pocket. One or two might carry a once-white haversack, or a felt-covered water-bottle, relic of the first war. They stepped it out proudly, even the smallest, though they had already come seven miles and had four to go before they reached the sea.

Late on summer evenings, when the afterglow was fading, and great cranes and pitheads were becoming indistinguishable against the warm, starless sky, they would return, dogged, silent, intent on getting home somehow, shedding wreaths of seaweed and strangely-shaped rocks, lightening their pockets of a day's junk in utter weariness, the youngest sometimes asleep on a brother's shoulder, and carried with a rare unspoken tenderness that was as much a surprise to the carrier as to the carried.

TO 'walk Shields' was one's earliest venture abroad in those days. 'Can you walk

Shields?'—the preposition was never used—was at once a challenge and a kind of physical rating, up to a certain age, of course. After that, we acquired bicycles and were automatically in a different class.

Shields, by which was meant South Shields, was our nearest coast-town, and in summer it was our Mecca. We walked to it like pilgrims, though trams ran all the way for about eightpence and the railway issued a sixpenny return-ticket. In those days we rarely had any money, and no one would have thought of wasting it on mere comfort if we had.

As we were only four miles from the coast we had no need to be afoot so early as the pathetic bands from the slums of Gateshead and Newcastle. Somehow we always seemed to start after an early dinner—at about one o'clock I suppose, when the sun blazed down on hot cement, and feet ached in grey sandshoes before we had got out of the street.

Nevertheless, we hurried along, excited and noisy, everyone talking and no one listening, cutting down lanes and alleys until we came to the end of our town. There was the square tower of the old church, the glittering mud-

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flats, the reeking river Don, and the broad cobbled road to Shields.

Sometimes we stopped at the old church. It had once been St Bede's monastery, and occasionally we ventured up the long, empty path to the dim interior and sat giggling in turn on the venerable monk's chair, or searched for old graves in the unkempt yard until we found that of 'Francis Heron, King of the Faws.' It was many years before I knew that the Faws were wild Northumbrian gipsies.

The mud-flats shone and stank in August heat. Away to our left a half-built ship in an abandoned yard lay like the skeleton of a primeval monster. Somewhere near here had stood the last-used gibbet in England. History oppressed us in this derelict place and we never stayed long.

HALFWAY to Shields there would always be an argument as to whether we should go by Stanhope Road or Holborn. The argument took place at Tyne Dock, resting on our hunkers against the dock wall, while cart-horses clashed by over the burning cobbles that smelled of stables and our voices were drowned by the roar of iron-rimmed wheels.

The Stanhope Road way was longer, respectable, dull, and safe. There was nothing interesting but a park, and parks were small beer on a pilgrimage to the North Sea. Holborn meant keeping to the river, though it was out of sight behind great dock walls and gates, and braving the, to us, appalling dangers of a small Arab quarter. It was with beating hearts that we usually turned left, and instinctively drew closer together as we passed the first highly-respectable row of boarding-houses for Scandinavian seamen, each one advertising, we surmised, not good cheap beds, but nameless vices.

The Arabs were never as exciting as we had expected. Thin, sad-looking men in flamboyant suits and scarves, they looked cold and bored, and seldom took any notice of us, though we walked close behind them to listen to the staccato, unintelligible talk. Once one of us imitated it, and an angry Levantine drew his razor and flashed it in the sun. We fled shrieking, but, of course, he would not have used it—except in a union dispute or a quarrel over a girl.

Once we looked in at the door of a lodging-house kept by one, Sidi, and surprised thin

brown hands dicing at a low table, and a ragged, handsome girl leaning against a white-washed wall, like someone in a French film.

But usually in the early afternoon there were few people about, and with lightened hearts we ran down the cobbled hill past ship-chandlers' shops into the market square, looked at the golden hands of the church clock and congratulated ourselves on the time saved by taking this short-cut.

THE market-square would often be full of stalls, and here we would quench our raging thirsts with halfpenny glasses of sarsaparilla and listen to the chocolate-sellers. A hoarse, red-faced barker would take a clean white bag and with rough abandon drop bar on bar of chocolate into it, and then offer it for the ridiculous sum of five shillings. No one would stir among the sun-struck crowd. Pouring with sweat, and muttering half-humorous imprecations, the man would add half-a-dozen more and reduce the price to four shillings. If there was still no offer, he would give it away with a warm Gilbert Harding-like contempt to an embarrassed housewife or a ragged urchin. Then business would start.

Near by, a Scot would be droning on the pipes while his daughter danced on crossed dirks, or a long-haired 'doctor' would comb his antipodean tresses and sicken us with details of ills only his nostrums could cure.

Though we were in the market, we were not of it, and we always wondered how the vociferous, sweaty crowds could possibly bear to waste their time staring and pushing with the sea only a few minutes away. After less than half-an-hour's dalliance we would go on with aching feet forgotten as we passed the bucket and spade shops and actually saw spilled sand on the pavement.

About halfway along the handsome Gothic street we saw the sea, beyond the trees of the Marine parks, beyond the tall houses where old sea-captains lived, between the flimsy timbers of the scenic railway and the railings round the first of lifeboats; always the same, the duck-egg-coloured sky, a black trail of smoke, and below the eternal horizon, the sea.

Like Xenophon's ten thousand we shouted, and then like those lean, stoical warriors we ran and ran till our feet sank in blessed sand, and our voices were answered by the grave assurance of breaking waves.

Mexico's Sinking City

H. HUNTER

HOW would you like to live in a town where your house is sinking at the rate of a foot a year? Yet this is what the residents of Mexico City have to face, and the problem has become so alarming that the authorities are planning to spend £14,600,000 to keep the city in place and to stop further subsidence.

In the past it has been tough on engineers who have erected buildings in the city, only to find that in a few years' time their constructions have not only sunk a couple of feet into the earth, but have also begun to tilt precariously on one side. Still more startling is it to see neighbouring buildings developing large unsightly cracks because of the settling down of the adjacent structure.

One of Mexico's most famous buildings, Mexico City's Palace of Fine Arts, which was built on a concrete base early in the century, has sunk no less than 12 feet during that time. And the three-hundred-year-old Loreto Church has slipped sideways, *en masse*, some three feet from its original level.

So uneven is the settlement of some old houses that the sinking has given the streets in places the appearance of waves. Even more peculiar, in one of the new hotels a guest can walk up and down hill along the corridors that lead to his room.

THE sinking is due to the fact that Mexico City actually floats on top of a semi-fluid subterranean lake with only a thin layer of surface soil between. The lake is in reality a kind of jelly composed of 93 per cent water and 7 per cent volcanic ash, and underneath this substance, at different levels underground, are layers of clay, soil, sand, and gravel, all soaked in water.

Naturally, any structure erected on such a spongy base will not remain upright for long. The ancient Aztecs, centuries ago realising

this, supported their stone edifices on wooden piles driven into the ground. When the Spanish in later years conquered the city, they tried out this idea and were able to build up to four storeys with some degree of safety.

Taller buildings became possible when engineers found that they could fasten them to firm foundations of sand and clay some hundred feet below the surface. They did this by driving piles one on top of the other until the solid subterranean layer was reached. In this way they could build a structure of fifteen storeys, a veritable skyscraper on stilts.

THE scheme, however, which is proving the most successful to-day is the one devised by José Cuevas, a noted civil engineer. His plan is to erect structures that can float like ships at sea. He has found that the weight of the building should be exactly the same weight as the material that is dug out to make room for the new subsurface structure. Being no heavier than the soil it replaces, the building cannot sink.

Cuevas tried out his theory by designing the National Lottery building, which not only floats on the semi-solid subsoil, but can be manoeuvred as well. Its basement is built like the hull of a ship and houses huge water ballast-tanks. If ever the building tilts, it can be trimmed back again like a ship.

To show this, one night Cuevas pumped water into the ballast-tank in the north wing. Next morning he found that the building was six inches out of line, tilting towards the north. When he reversed the flow and filled the tank in the south section, the building shifted half-a-foot to the south. By emptying all the tanks he could raise it half-an-inch in a day, or, correspondingly, he could sink it three-quarters of an inch below its normal level if he flooded them.

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To-day an automatic levelling-device that keeps the building on an even keel has been installed. This consists of an electrical plumb-line and bob which swings to circular contacts if the building tilts. When the bob touches one of these, an electrical circuit is completed and this starts the pumps, which brings the building back into position again. As soon as it is in plumb, the bob breaks the contact and this stops the pumps.

Should a large building be erected near by, and one which might upset the balance of the Lottery Hall, provisions have been made whereby further water and concrete ballasts can be fitted in its basements.

DESPITE such schemes, there is always the danger that Mexico City could become extinct if it goes on sinking at the present-day rate, for the position has been aggravated by the fact that its rapidly-growing population is actually drinking up the city's foundations.

To increase the water supplies, wells have

been dug to a depth of several hundred feet. To make up for the loss of water so deep down, the water from the jelly-like base slowly trickles out to replace the water that has been pumped from its gravel depth. Having no water, the semi-fluid base shrinks, and the result is subsidence.

Cuevas foresaw this difficulty nearly twenty years ago, when he predicted that if these underground wells were pumped, sooner or later the city would sink so low that the sewerage system would be inadequate. When floods occurred in 1949 his prophecy unhappily came true.

Under the new plan sewerage lines of steeper gradients are being carried out. Water, too, will have to be brought from the mountains, and gradually every well in the city will be shut down.

If all these emergency measures are taken, the experts are hoping that the sinking metropolis can be saved, and be, in fact, what it really has been for centuries—the floating City of Mexico.

The Last of the Centaurs

*From a dark avenue of pines he came,
Stealthy, uncertain, on the prong-strewn way;
Timid, he pawed the dry earth with his hoof,
And from the soft depths of his eyes there shone
Something of that far glory he had known.*

*'This park,' he said, 'where rowdy urchins range
And swirling papers strew the trampled grass,
Was once a gracious haven where I roamed
Untroubled through the dreaming centuries.
A great-great-grandsire of my recent lord
Found me upon the silvered sands of Crete,
An orphaned foal-child from Olympus strayed,
And gave me sanctuary in these quiet groves.*

*But now the mellow yesterdays are sped.
The public, that insatiate forest fire,
Sears through the peace of once-sequestered lawns.
What will they make of me, lost child of Pan?
A sordid sideshow at a crowded fair,
A numbered case in some enclosed museum—
I who have raced at Atalanta's side
And plucked the golder fruits of Arcady.'*

*He wheeled with startled swiftness and was gone.
A troop of noisy picnickers came by,
Brushing his hoofmarks from the dusty soil.*

HEATHER VINEHAM.



Cofela's Lie

MARGARET BARNES

'PLEASE, N'kosikos.'

Mrs May looked up from the letter she was writing at her desk. 'Yes, Cofela, what do you want?'

The young African boy standing in the doorway was a part-time member of her household staff. In the mornings he attended the little farm-school which the Mays and their neighbours had established as an amenity for their native employees, conducive to the contented farm labour so much desired and so hard to come by in times when the lure of the towns was growing daily stronger in Rhodesia.

Cofela was an exceptionally bright boy of about twelve years old. Unlike most of the children in the farm-school, he was not the son of a farm employee. He had come seeking work on his own account, and Mrs May, liking his looks and recognising his potential usefulness as a house-servant, had taken him on, on the understanding that he must go to school in the mornings and work for her in the afternoons for a small wage.

He was standing very straight in the doorway, immaculately dressed in the white shirt and shorts in which he came on duty in the early afternoon. 'Please, N'kosikos, I want leave.'

'But, Cofela,' said his mistress, laying down her pen and leaning back in her chair, 'you can't take leave now. What will your teacher say? You must wait until your term is finished. Why do you want leave?'

'I want to go and see my mother.'

'By and by, Cofela, you can go and see your mother. Not now.'

Cofela clasped his slender, pink-palmed hands before him in a prayerful attitude and opened his shining black eyes tragically wide. 'I must go and see my mother now, now, N'kosikos. She is very sick.'

Mrs May, resting her chin on her hand, looked steadily at the little boy. 'How do you know your mother is sick, Cofela?'

Cofela broke into a glib chatter of explanation. A boy had called at the farm compound who had passed through his home kraal. It was he who had brought news to Cofela of his mother's sickness.

'Are you speaking the truth, Cofela?' From many years' experience of the native people, Mrs May knew only too well how readily they would lie about the health of their relatives in order to win consent for an unearned holiday. 'My brother is very sick,' they would tell you, knowing that the white people, with their own strong feeling for

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family ties, would hesitate time and time again to turn down the plea, close as its associations were with the traditional joke about the office-boy and his grandmother's funeral, just in case this was, for once, a legitimate appeal.

Cofela nodded his round head with its close-cut cap of woolly hair in earnest confirmation of his truthfulness. Then, as his mistress still hesitated, looking doubtfully at him, he blinked his great eyes rapidly and two large tears spilled over his lids and ran down his cheeks.

'Oh, well,' said Mrs May hastily, 'I suppose you had better go. How long are you going to be away?'

'Ten days, N'kosikos. Three days I go, three days I see my mother, three days I come.'

'That makes nine days, Cofela. You have not learned your sums well.'

'Yes, N'kosikos, I know. Nine days. But one day I sleep, because when I come I am very tired. Ten days' leave, N'kosikos.'

Mrs May laughed. 'All right, Cofela. You must leave your white clothes in the kitchen, and I will give you half your money and the cook-boy can give you some bread and mealie-meal and sugar for the journey. I hope you will find your mother better. Go along, then, and do not be late coming back.'

Turning back to her letter-writing, Mrs May reflected that her husband would certainly tell her she had been too soft again. But suppose the little lad's mother were really ill . . . She doubted it very much, but as a mother herself she did not care to take the risk of that.

COFELA, having changed quickly into his khaki clothes, waited only until the promised money and food had been given him before darting off to the compound to roll up his blanket and provisions into a tight bundle and start on his way. In his shirt-pocket he had stuffed a few pages of his school exercises in writing and arithmetic. Those he must certainly take with him to show to admiring relations. He was glad that the compound was deserted, with the farm boys out on the lands and the other youngsters gone off with the women on a wood-foraging expedition. He had no wish to discuss his plans with anyone, for it was one thing to tell the Makiwa, the white people, that one's mother was sick, but he knew his tale would

meet with scant credence from his own kind. And Cofela was not quite happy about his lie. Somewhere inside him he had an uncomfortable feeling that one should not tell lies about one's mother—not even when one was very, very homesick and longing to see her, and not even when to tell a lie seemed the only way to soften the hearts of the white people.

But once on the road Cofela soon shook off the uneasy feeling of guilt. He was going home! Balancing his little bundle expertly on his head, he danced a few steps, scuffling his bare feet and stamping in the dust to give vent to his joyous feelings. He had wanted so badly to go home. Not because he was not happy on the Mays' farm. He liked school, and even more he liked the important feeling it gave him to don his white clothes, just like Dalo the waiter, and to show how quick and clever he could be about the house, fetching and carrying for his mistress, waiting on the young bosses, drying plates after the evening meal. Oh yes, he liked to work in a white man's house. He liked to see himself reflected in the long bedroom mirror when he went in to fold the bedcovers and draw the curtains, looking so smart and clean. Some day he was going to be a very special house-boy. Perhaps he would go to the big town and work in a hotel.

But now he wanted to go home. He wanted to tell his mother how much he was learning, and how he could go to school and earn money at the same time. He felt in his trouser-pocket for the two half-crowns he had tied up in the corner of a piece of clean rag, pinning the rag on to his pocket-lining. He was going to give them to his mother, those half-crowns, and she would be proud and glad that her son could bring her money although he was so young—the youngest of all her children. She had not wanted him to go away. His father was dead and his brothers had wives and children of their own. His sister could stay with their mother, he had said, but he could not be content to stay at home and herd cattle. He was restless and ambitious, and his sharp intelligence goaded him to go and see for himself all the things that belonged to the white men on their farms and in their towns.

Cofela walked quickly. Presently he must leave the wide, dusty road and strike off by a footpath which would bring him to a kraal where he could spend the night. Perhaps he would

find someone there who would be going his way to-morrow—company for the long, long walk which lay before him. It would be better to have company when he came to the kopjes. There were leopards in those kopjes, his brothers said. The thought of leopards made Cofela feel afraid. He began to shout and sing and to run with big hops and strides so that his fear should not take hold of him. Here now was the path. Soon he would come to the kraal.

COFELA was made welcome to his night's rest at the kraal, and next morning he found himself in luck, for two friends of his brothers, grown men and well known to him, were going to pay a visit to his home kraal. Cofela felt himself grow in stature as he set out with them at sunrise, matching his stride to theirs, listening attentively to their grown-up talk of family affairs, glad of a chance to chip in here and there with a contribution of news of some relative or friend of whom he had heard talk during his sojourn on the Mays' farm.

At first the time passed quickly, travelling thus in company; but long before the midday sun stood overhead Cofela began to tire and to long for a halt. More and more he lagged behind as they plodded, silent now, along the narrow, dusty pathway through the tall yellow grass; and when at last they came in sight of a cluster of huts beside a primitive well in a little river-valley he had no thought for anything but rest. Tolerantly his older companions idled away the hot hours of the early afternoon while the child slept on the ground where he had flung himself down after quenching his thirst at the well. But towards evening they roused him, and they walked again for several hours before they reached the mission-station where they had planned to spend that night.

The next day the going was harder, through rough and stony country, with the granite kopjes rising on either side of their winding path. Cofela hastened his steps so that he walked between his two companions, for this was the leopard-country, and he had no mind to be left lagging behind to-day. The midday rest was a short one, for there was no other kraal now between them and Cofela's home, and they must try to reach it before nightfall.

Cofela trudged and trudged. His head felt light and his stomach felt flat and empty. The

joy of returning home was lost in his weariness. It seemed to him that the journey would never end.

COFELA was moving in a daze, scarcely conscious of his surroundings, when he felt a hand on the back of his neck, urging him forward. 'Come, now, little one. It is near now, very near.'

Cofela made an effort to rouse himself and saw that they were indeed already crossing the familiar mealie-lands of his home kraal. He felt a sudden surge of excitement and broke into a stumbling run. He could see the kraal fires now, and figures moving to and fro in the smoky half-light of the late evening. There was his mother's hut; and there—yes—that was his sister, looking now towards him. 'Ho, Selena!' he called, trying to make his voice sound big and strong, although there was little breath or strength behind it after the strain of his journey.

The girl, older by several years than he, began to move slowly to meet him. 'You have come,' she said, as he stopped, panting, before her.

'Yes, yes, Selena, I have come. I have come to see you. I have got leave.' He used the English word proudly, conscious of the dignity it conferred on him as a working man.

'They told you?' his sister said.

'Who? What? Selena, where is our mother?'

Selena motioned with her head towards the hut behind her. 'She is sick,' she said. 'Very sick. Our brother has gone to tell you. Did you not see him?'

An icy pang shot through the heart of Cofela. It was true! His mother was sick. He had told a lie, and now it was true. Somewhere at the back of his childish mind a horror was shaping. What had he done, what had he done?

He pushed past his sister and went into the hut. There was smoky firelight in there, and at first he could see nothing. Peering about him, he made out the low wooden bed and the blanketed form upon it. He threw himself down beside it. 'Mamma!' he whispered hoarsely. 'Mamma!'

The woman on the bed sighed and stirred. Her eyes opened and her thin black hand groped, feeling over the face and head of the child beside her. 'Cofela,' she said. 'You have come, Cofela.'

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WHEN they told Mrs May that word had come that Cofela's mother had died, she felt thankful that she had not let her suspicions of the boy's untruthfulness prevent his going home. 'You see,' she told her husband, 'you never can tell with these people. I never really believed that his mother was sick at all. But I was wrong as it proved, and it is a good thing I was soft about it this time.'

But when, after a few weeks, Cofela appeared again at the farm, the story came to her by way of the other servants of the strange coincidence of the boy's return to his kraal while his brother was still on the way to tell him of his mother's sickness. She had no intention of questioning him, for he looked thin and ill, and went about his work listlessly, and she was grieved for him. But as time went by and he showed no sign of throwing off his heavy mood she spoke gently to him about his mother, saying how glad she was that he had gone home in time to see her.

To her consternation, the boy burst into a wild fit of weeping, throwing himself upon

the ground and hiding his face in his arms. After a time he was quieter, and then he said, looking away from his mistress: 'I said that she was sick, and the sickness came. I told a lie, and then it was true.'

Mrs May, deeply touched and troubled, hesitated a moment, conscious of the shadowy background of superstition in the African mind, aware that the child was in desperate need of comfort in his pitiful belief that his lie had somehow caused his mother's sickness, that he had, as it were, wished upon her the trouble he had invented for his own ends.

'Cofela,' she said, 'it was not a lie you told me. Your heart knew that your mother was sick, although your head did not know it. That is why you wanted so much to go home. Your mother was calling you.'

She heard him draw in his breath and hold it for a moment. Then he sat up and let it go with a great sigh. 'My mother was calling me,' he whispered, as though trying the thought over, testing it against his remorseful grief. Then louder, raising his eyes and looking trustfully up into her face: 'My mother was calling me!' he said.

The Sea

*The sea is a wave of wonder bringing
Up the fair firth the banners, all bright, of morning,
Showering the sleeping strand with a pearly pouring,
Filling the grey sea-coves with its own sea-singing.*

*Dawn brings remembered dawns breaking
Cold on the beach, cold in the sea's recesses,
Mist laid hoar on the hand, on the seaweed tresses—
The houses uplift their eyelids, the world is waking!*

*As on the first-made morning, the town turns over,
Rises from rest with a weary eye to the weather,
Greeted the new dawn as a thousand dawns together,
Welters in wave where the drowned are drowned twice over.*

*Lone, at the lamp, the old man remembers the ocean,
Parting the curtain-shroud for scanning the billow—
Oh, once again he's the lad with a foot on the furrow
Down where the sea-wall slaps to the sea-tide's motion!*

*All of a thousand days there has been no shifting
Of sand or shingle under the surf unceasing—
From his first ocean-days there is no releasing
For an old man out with the dawn on the grey tide drifting.*

LILLIAS MAGDALENE SCOTT.

The Palio

Siena's Famous Horserace

FAY HALL

TEXTBOOKS on any subject tend to be uninspiring; most foreign grammars are positively forbidding. It was, however, in an E.U.P. *Teach Yourself Italian* that I first came across a reference to the Palio at Siena. The determination to see this historic horserace grew within me from that moment, although, as it turned out in the event, four Italian summers passed before I found myself, almost by coincidence, in the right place at the right time.

My sister and I were staying in Florence, that loveliest and most gracious of Italian cities. My announcement that we were going to Siena for the Palio was accepted wholeheartedly by my sister, to whom the words probably meant even less than they did to me; but our good landlady was doubtful. 'Siena—for the Palio! But the crowds!' she exclaimed. 'Everyone in the world' (pardonable and colourful exaggeration), 'everyone in the world goes to Siena for the Palio. You will be unable to see anything at all. All seats will be sold by now, and if you join the crowd in the Piazza you may possibly be injured by a horse breaking through the barrier, you will probably be crushed when the crowd becomes over-excited, and you will most certainly get sunstroke.' I thanked her with every show of courtesy, and bought our bus tickets that morning.

ITALIANS must indeed be surprised when they come to England and are told that a bus is full up simply because it has five rather self-conscious people standing in a prim row down the centre of it. The bus that hooted its reckless way out of Florence in the early hours of an August morning was packed to overflowing, but, oddly enough, it did not

overflow; instead, it took on more and more passengers at every stop. Every passenger, of course, was laden with string-bags, from which protruded already-battered-looking loaves of bread, vegetables perhaps, and the inevitable garlic sausage of indeterminate age and indescribable aroma.

One toothless old peasant inquired whether we also were going to Siena, and my sister and I immediately became objects of universal interest. Rocking sideways with every jolt of the bus, and feeling rather like a pinioned sardine standing on its tail, I tried to take in all the advice, warning, and encouragement that was hurled at me from all my kindly but vociferous fellow-sardines.

An old woman, lined and wrinkled as a withered leaf, shook her head sadly, and said that, if there were any seats left, they would cost about four thousand lire each. In the face of her age and poverty I was ashamed to admit that I was prepared to pay any sum in order to see the Palio, and, unwilling to break the comradeship which communal discomfort had established, I changed the subject and recounted how in London I had stood all night and all day in order to see the Coronation procession pass. This was greeted with immense enthusiasm, and I was questioned about the English ceremony and tradition as minutely as if I had been a member of the Royal family, instead of a mere bedraggled kerbside spectator.

When we finally arrived in Siena, we parted as one always parts from fellow-travellers in Italy—that is, as English school-children part at the end of term, with shouts and laughter and much waving of hands, a boundless zest for the next experience that life has to offer, and the careless confidence that one will meet again somewhere, sometime.

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THE streets of Siena were thronged. Old women dressed in black and paper-hatted youths jostled one another good-humouredly. I tried to be equally good-humoured when the mudguard of a large and expensive-looking car grazed the calf of my leg. The charming and lovable lack of inhibition characteristic of the Latin races is never more clearly displayed than in their driving of motor vehicles; the latent principle—'I'm the king of the castle!'—is upheld by flamboyant hooting and a ruthless insistence upon precedence.

We heard Mass in the cathedral, and surely no other cathedral was ever quite so merry. Compared with, say, the dusky grandeur of Notre Dame in Paris, the atmosphere in Siena's chief place of worship reminded me of a ballroom or a fairground. A great blaze of light and colour greeted us as we walked in; countless chandeliers flamed down the main aisle, which was hung with banners, crimson, green, and yellow, each banner a different colour, and bearing the emblem of its quarter of the city. It was here, later in the day, that the horses competing in the race would be brought to be blessed. Now, as the solemn music of the *Agnus Dei* filled the church, the Sienese in their best clothes strolled from one chapel to another, or stood in groups chatting—possibly making bets as to the result of the day's race. The noise was slightly reminiscent of a London cocktail-party; the hectic excitement was the same, but here there was no artificiality, only a vibrant hum of life, with the swelling organ music for background. There can be no doubt about the fact that to be a Catholic is to be at home in a church.

AFTER Mass we made our way to the lovely shell-shaped Piazza where the race was to be run. Sand had been sprinkled liberally, but somewhat ineffectually, over the cruelly-hard cobblestones, and gaily-decorated wooden stands were set up against the houses. After going fruitlessly in and out of cafés—the only Keith Prowses for this unique spectacle—we wandered rather disconsolately across the Piazza, wondering whether we could sit through the day's heat with only a newspaper for shade, as many people were already preparing to do.

We approached a butcher's shop, where a grey-headed *carabiniere* was leaning against the doorpost chatting to the proprietor. The butcher shook his head when I asked if he

would sell us places at his window above, but the soldier stepped forward eagerly. 'If you will permit—I have a friend—a very great friend—who has a balcony.' Our hearts leapt, and we followed our kindly guide through an old courtyard. He was stopped suddenly by a beaming and bespectacled old man, who wrung him so warmly by the hand that any northerner would have imagined this to be a reunion after years of separation. 'Ah, Carlo, how are you? And how's your wife, and the children, and—' We were hanging back slightly, not wishing to intrude, and every time our good soldier tried to bring the conversation round to us his friend would slap him on the shoulder and ask when would he come in and drink a cup of coffee with the family. 'These friends of mine'—we heard at last—'these very good friends of mine, Giacomo, are trying to buy tickets for the Palio. Have you any room at all on your balcony?' Giacomo considered us for the first time, and we tried hard and with unaffected sincerity to look as Carlo's friends—his very good friends—ought to look. Finally, Giacomo sold us two tickets—at half-price, for were we not, after all, Carlo's friends—and showed us the door by which, later that afternoon, we could enter his house. We parted with protestations of gratitude, and inward relief, and went off to celebrate our success at one of the cafés, whose tables and parasols were scattered gaily over the sandy course of the evening's race.

TOWARDS five o'clock we climbed Giacomo's stairs and took up our position on his balcony. Friends and neighbours had been invited and the thin little balcony, just large enough to take four people with comfort, was soon perilously overloaded. We stood on rickety little stools with our backs to the wall, a row of children sitting in front of us, and, unbelievably, another row standing sandwiched between us. My sister announced in a thrilling whisper that she might quite possibly faint at any moment, and, as there was very little to prevent us falling headlong over the edge of the balcony, I had to admit that she might, in the circumstances, achieve something spectacular.

A sudden roll of drums claimed our attention, and the historic procession, which took one and a half hours to cover ground over which the actual race lasted only three minutes,

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had begun. The chief dignitaries of the city, all robed in splendid medieval garments, pages garlanded with flowers, the jockey-knights on their chargers, all passed beneath our balcony with the happy-go-lucky swagger that makes an Italian pageant so truly alive—and so undignified. Every quarter of the city had not only its horse, but also its banner-throwers. Performing in pairs, the banner-throwers tossed their banners high into the air, caught them, furled and unfurled them, exchanged them in mid-air, all with the skill and dexterity of conjurers and the grace of ballet-dancers. Last of all came the Palio itself—the Pall, or banner of Our Lady—on a waggon drawn by four white oxen.

The crowd, which had been cheering wildly, became suddenly hushed as the jockeys, no longer on the processional chargers, but bare-back on beautiful, spirited racehorses, took their places, by lottery, at the starting-post. A few minutes of tense suspense, and then—they were off! The onlookers became delirious with excitement as the race streamed twice round the Piazza, and the breath caught in my throat as the horses took the perilously

sharp corners—so near, and at such speed, that a hand's breadth misjudged could mean disaster. In a flash it was all over, and the winner was sliding off his horse into the arms of the police, for this race, dedicated to the Mother of God, has a tradition of such knavery that the winner must always be carried away on the shoulders of the police, to prevent his enraged and disappointed rivals from wreaking their revenge upon him!

WHEN we left Siena that night the people were singing and dancing in the streets, wine was flowing, and, best of all, a great banquet was taking place, at which the gallant horse who had won the sacred Palio for his 'constituency' would have his manger set beside the table and eat his festive meal in company with his masters. We were tired, we were incredibly stiff from three hours' standing, and we were crowd-battered; but as we jolted through the darkness back to Florence, that one day in Siena was already a memory to be stored and treasured in our minds for ever.

Fuel from the Land

The Mechanisation of Ireland's Peat Industry

THOMAS KELLY

THE experimental scheme in the Highlands, on the results of which will depend whether the great peat-bogs of Scotland are to be developed on a commercial basis, has a particular interest for Irish folk. Lacking coal in any appreciable quantity, we have always been, in the modern phrase, turf-conscious.

In my young days in Ireland there were two types of fuel in general use. Broadly speaking, coal was burned in Irish towns and cities, turf in the country. Incidentally, there was one

argument which I never heard definitely settled—whether the Glasgow steamer brought better coal into Sligo than came from England. A modern historian has recorded that the Irish town-dweller was taught to regard the burning of sea-coal in grates and ranges of British manufacture as a badge of civilisation, and 'until quite recently most of our people accepted this idea without question.' Yet, even in those early days, what little coal was burned in Ireland's country houses was usually

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reserved for Sundays during winter, and then for the parlour grates of the more comfortable folk. Commonly it was supplied by dealers, who did not talk glibly of best nuts or selected cobbles. They asked simply, 'Scotch or English?' and supplied whatever grade came first to the shovel from the appropriate black heap in the coal-yard.

The country-dwellers who were near enough to a bog cut and saved their own fuel. Apart from the cutting, which was a skilled task, most of the turf-winning was done by the members of each family, a good deal of it by youngsters during school holidays. Indeed, the picnic aspect of this fine-weather work—for meals were generally taken around gipsy-like fires lighted on the bog—largely offset its drudgery so far as the children were concerned.

The cutting tool was a sort of light, skeleton spade, called a slane, which needed deft handling. The man who could wield it expertly commanded double the usual agricultural wages. He delivered evenly-carved slabs instead of the amateur's ungainly lumps. And so skilfully could he slide the peats from the blade of the slane that he left the few final rows, from the bottom spit, standing on end with just enough space between the sloping, sodden peats to allow the wind to help in drying them.

When fit to handle without breaking, the turf was spread singly, and later 'footed,' or gathered into little clusters resembling the outer rim of a tramp's fire. Clamping and stacking followed in order, as the peats became drier and more seasoned. The winning was not unlike the harvesting of a crop, and so depended to no minor degree on the weather.

In districts where small areas of bog were little more than oases in wide tracts of agricultural land many families made the sale of turf a profitable side-line. The men from the bogs, though, were regarded as inferior folk by the dweller in the more prosperous countryside. The latter could put a world of contempt into the term he flung after his turf-supplier: 'Bog-trotter!'

To-day, however, the modest bog-trotter is beginning to fancy himself something of a technician. In more than half of the twenty-six counties Ireland's Turf Board, officially called Bord na Mona, is showing the country how most of the toil can be taken out of turf-winning. The machines that perform the tasks which formerly brought backaches to

many a toiler may not have poetic names—ditchers, ridgers, millers, off-set millers, harrows, scoops, and harvesters—but they get down to the job.

ALTHOUGH I had but a brief contact with a few of the pioneers who are shaping the future of the country's turf industry, I could not help feeling infected by their enthusiasm. The adventure is sponsored by the Government, for private enterprise could hardly be expected to tackle so many bogs scattered all over the country, but the fact has lately been disclosed that Bord na Mona not only paid its way, but also ended its last year with a nice profit.

While the representatives I met had none of the cocksureness of the newly-promoted civil servant, or the pride of the business man who is getting there, they seemed to me to combine the best qualities of both types. Their aim is to produce I forget how many million tons of machine-made turf annually, and to supply not only factories and domestic users, but also a growing chain of electric generating-stations.

They started activities by, so to speak, going to school again. They forgot the Connemara man and his slane, and they discovered on the Continent a machine that, with adjustments, could be adapted to their needs. In 1947 they established a research station on the edge of a wide bog in Co. Kildare. The purpose of the station is to make research into and carry out experiments on methods of winning and utilising turf. Particular emphasis is laid on the application of the most modern technique. The station library holds a probably unique collection of literature dealing with turf in all its aspects. Every country known to be interested has been approached, and has willingly co-operated.

The mechanical workshop is primarily concerned with the mechanisation of the manual operations which make turf-winning so arduous and so expensive. Drainage machinery, which, for the first time in the history of turf-production, has made possible full mechanisation of the first and second drainage cuts in bog development, has been evolved. One of the worst drudgeries in the industry has thus been overcome. An exhibition of drainage operations in Scotland's marshes was a feature of B.B.C. television during August last. As I watched it, I was remembering that Bord na Mona's drainage staff were doing

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much the same thing. The development of a new sod-peat spreader and experiments in hydro-peat methods of excavation are other examples of the research work undertaken.

IN order to promote the more efficient utilisation of turf, domestic and industrial appliances are tested at the research station and developed in conjunction with the manufacturers. Standards of performance have been set up for cookers, space-heating stoves, hot-water boilers, and even open fire-grates. Hundreds of tests on machine turf and briquettes in industrial boilers and driers have been carried out, and a wide range of plants recommended for use with turf.

Indeed, the Board claims to have established that turf as an industrial fuel is as efficient and economic as any other. A further claim is that the recently-developed Mona-jet burner marks an almost revolutionary advance: 'This automatic burner can be fitted to any central-heating boiler, hot-water boiler, steam boiler, drying-furnace, bakery oven or crucible of kiln furnace, so that turf can be burned completely with more efficiency, lower fuel costs, and better furnace performance than any other method.'

Activities in the Chemical Section of the research station include a successful investigation into the commercial possibilities of the extraction of wax from turf. I gather that all data, and all results to date, are freely at the disposal of anybody interested. It is not often that Ireland can say to Scotland: 'You can start from the point at which we have arrived.'

One can easily appreciate that the Irish cottier living near a bog, with help from his family available, can produce his own fuel much more cheaply than he could buy it. But the claim of the Turf Board is that, judged by results, turf is cheaper than coal. The price on the site for the dried turf is less than £2, 10s. per ton—about one-third of the 1953 cost of coal in Ireland.

Unlike the Corporation that spoils beauty-spots to make water-dams, or the Council that covets prime land for building schemes, large-scale turf-cutting does not spoil the appearance of the countryside. The growing of sugar-beet on reclaimed areas of cut-away bog is already beyond the experimental stage: the reafforestation of ground unfitted for easy cultivation is more than a pipe-dream. As an old man on a farm near a bog put it: 'Them lads that does

their bog-trotting by machinery is making the country good-looking.'

One human touch is obvious in the Bord an Mona plan. Machine-won turf can be garnered economically only where long and wide stretches of bog are available. But the Board does not operate close to the roads. Thoughtfully it leaves the most convenient margins to be cut by the local folk, who usually pay a nominal rent for the privilege. These folk measure their holdings by the yard, while the Board thinks in terms of miles.

ON my tour of investigation I watched many of what youngsters call wizard machines at work, but the ingenuity of the monster excavator—known to its attendants as the bagger—made me stand and gawk in wonder. Like a monster harvesting-machine, the weird-looking contrivance grinds slowly forward. Metal tubs on a circular shoulder twist round and round as they scoop up the face of a deep plateau of bog and feed the muddy-looking stuff into the macerator. After being pulverised, the sticky, grey-black mass is fed on to a conveyor-belt which is supported by a maze of wheels and rollers and projects for an unbelievable length across the previously-shaven area of bogland. The oblong caterpillar of seeping turf is dropped in close, parallel lines, and the huge machine shivers forward in convulsive jerks.

The layman can only marvel at the ingenuity which perfected such an appliance. The ones I saw in action were driven by electric power. In the season when turf can most economically be harvested—roughly from mid-spring to mid-autumn—they work right round the clock, the hourly output being about ten tons of turf from each machine.

When the long straight lines are fit for handling in the pieces into which they have been cut by discs on the bagger-arm, they are—as one of the workers put it—made to stand on their own feet. Previously this was a stage at which the sods had to be individually lifted by hand. During the 1953 season, for the first time, the raising of the turf for drying was being effected mechanically by the recently-invented turning and wind-rowing machine. A new automatic collecting-machine is also at work on a big bog near Dublin, so the ambition to produce turf untouched by hand has been realised. The lorries which haul the turf off the larger bogs can be automatically loaded

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from a chute in a matter of mere minutes.

And so the silent revolution that may have made many an old-time bog-trotter turn in his grave goes on across the face of Ireland. One of the major aims of the enthusiastic pioneers now is to supply turf in increasing quantities to electric generating-stations. Up to a few years ago the Shannon Scheme was regarded as the peak point of Ireland's electrification. But it will soon be pushed into place as just an adjunct to the peat-burning generators now being erected at different points throughout the country.

In a lush corner of Co. Kildare, on the edge of a bog, the big generating-station at Allenwood stands as a sort of memorial to the men who place their faith in turf. Its first generating-set has been in commission since 1952, and the plant comprises two 20,000-watt steam

turbo-alternator sets of normal axial-flow type. The estimated annual output is 135 million units: the water quantity of the cooling-tower is nearly two and a half million gallons per hour.

Pointing proudly to the graceful white outline of the cooling-tower, my young guide remarked: 'That's the kind of round-tower will put a future into Ireland.'

'So you haven't much use for the past?' I questioned.

He looked seriously at me and commented: 'I often heard my uncle say that in one of the early Abbey Theatre plays one of the characters said that all Ireland manufactured then could be sent away by telegraph.' With a grin he indicated the line of pylons that stretched away to the horizon: 'All the stuff we make here is sent away by wire.'

Lovers' Quarrel

(After Horace)

Lad: *The while you thought me a' the go,
And nane mair sib his aims wad throw
About your lily neck, I swear
Mair blithe was I than millionaire.*

Lass: *Meikle cause had I for pride
As lang as juist for me you sighed
And didna think sae weel o' Jean.
Weel kent was I as Scotland's queen.*

Lad: *A lass frae Skye noo hauds my heart;
Tae play and sing she has the art;
Blithe wad I lay me doon and dee
Gin fate wad let my dearie be.*

Lass: *There's ane frae Fife that loos me weel,
And equal love for him I feel.
Twice wad I lay me doon and dee
Gin fate wad let my laddie be.*

Lad: *Yet, gin auld love should come again
And oor twa hearts aince mair enchain?
Gin red-haired Jean were shown the door,
And in you steppit as before?*

Lass: *Tho' Johnnie's fairer than a star,
Tho' lichter than a cork you are,
Ill-natured, like the girny sea,
Blithesome wi' you I'd live and dee.*

T. L. HOWIE.



The Fish

LOMRI

THERE is, unfortunately, little trout-fishing in East Anglia nowadays. Most of the streams in which Izaak Walton caught trout are now polluted with effluent, or have been harnessed to provide part of London's water-supply. I therefore count myself lucky to have a rod in a small and select syndicate on a charming little river not many miles from London. This river runs for about three miles through a private estate in the most pleasant surroundings imaginable. The owner of the estate has devoted a good deal of time and money since the war to clearing the weed and increasing the stock, and the river now holds a good number of fish of about $\frac{1}{2}$ lb. to 1 lb., with some weighing up to 3 lb. or over.

Although in some places only about a hundred yards from a road, the river is well concealed and secluded, and it winds its way through rich pasture grazed by the owner's herd of Herefords. The variety of wild life—even disregarding the fish—is a constant fascination. Moorhens and wild duck with their broods of young, kingfishers and water-rats, the call of pheasants and pigeons from the woods on the estate in the background, all add greatly to the pleasure of a summer evening.

A single-track railway-line passes through

the estate, sometimes alongside the river, and sometimes crossing over it. Although it runs for only a few miles, connecting some isolated hamlets with the town and the main line, it is a busy little line, and, far from detracting from the rustic charm of the countryside, appears rather to add to it. The engine-drivers usually watch the river as they pass, and give a friendly wave, or even a toot on the whistle, to anyone with a fishing-rod. They also toot the whistle regularly as they arrive at, or depart from, each microscopic platform dignified by the name of a station, and as they come in sight of the level-crossing where a private road from the estate to the main road goes over the line.

There are farm buildings and cottages by this level-crossing, and the estate road crosses the river by a ford, below which is a pool inhabited by a highly-sophisticated and photogenic fish, who, so far as I have been able to discover, feeds only on minnows and pieces of bread, and the latter only if they are presented really artistically. However, we fish only with the dry fly, and no dry fly has yet deluded this fish.

About one hundred yards from the level-crossing, the railway-line runs over the river by a small bridge. This bridge is of the simplest construction, and consists of two

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girders supported over the river-bed on two brick-built piers. The railway-sleepers are supported on the girders, and the railway-lines on the sleepers, and that is all there is to it, except for some three-feet-high railings on each side of the bridge. Above and below the bridge the river is traversed by a number of wires above the water, which act as a fence to prevent cattle passing under the bridge. These wires also most effectively prevent a fly from being cast under the bridge.

ONE evening in late August I left my car by the farm buildings and, having set up my rod, walked up the railway-line, which was the shortest route upstream to the particular stretch of water which I fancied. Going over the bridge, as always I kept my eyes on the railway-track, since the sleepers were about two and a half feet apart, and a false step might precipitate one uncomfortably through the gap into the river below. As I passed over the first brick pier I could see down into the gin-clear water, and what I saw made me check so suddenly that I nearly lost my balance.

Bending down to look more closely, I saw lying in about three feet of water alongside the pier the biggest fish that I had ever seen in the river. I estimated its weight at about 4 lb. It was lying almost motionless, with just sufficient movement of its great tail to hold it against the gentle current.

I withdrew a yard to make certain that I was out of sight of the fish, and contemplated the position. I knew from experience that it was quite impossible to cast a fly to the fish either from above or below the bridge because of the barrier of cattle wires. There was, in fact, only one possible way of getting a fly to the fish, and that was through the sleepers on the bridge. If I could succeed in doing this, and if, by chance, the fish took the fly, what was likely to happen?

Above the bridge was another ford of very shallow water for farm vehicles entering and leaving the farm, and therefore it was most unlikely that the fish would run upstream. About ten yards downstream was deep water and a bed of weeds, and it seemed probable that a hooked fish would run for this.

If I could remain in contact while this happened, I would then have to pass my rod through the sleepers, under the outside girder and railings, and then walk over the bridge

paying out line, down the bank, and into the ford, and play the fish from there, if—and a very big if—he was still on the hook by that time. The possibility of catching the fish seemed extremely remote, but at least it was worth a try, particularly as I felt certain that nobody else had caught a fish of that size in the river, at any rate since the war.

IF I did succeed in hooking the fish, it was evident that I should have to lie flat on my face in order to pass my rod through the sleepers, and I therefore first removed my coat, so that, if this eventuality arose, the contents of my pockets would not empty themselves into the river. I hung my coat on the railings, as well as my net, which I carried on a strap slung over my shoulder.

I then pulled about twelve yards of line off my reel and coiled this very carefully on a sleeper, so that it would not tangle if the fish took it out in a rush. Only then did I take another cautious look to make sure that the fish was still there, and was reassured to see his tail still gently fanning the water.

Very slowly I moved the point of my rod forward until I judged it to be ahead of the fish's nose, and then lowered it, letting cast and fly down between the sleepers. Incidentally, I had a 3x cast, and the fly was a double-winged silver sedge, which I had left on since I caught one fish on it and rose another the previous week.

I was able to judge fairly well the position of my fly in relation to the fish, and after a little manoeuvring I dropped it neatly on the water about two feet ahead of him. It drifted slowly down straight over his nose, but to my great disappointment nothing happened. If a fish can be said to hunch its shoulders, this one did, and, if anything, went slightly deeper in a sulk.

I tried again, and again the fish completely disregarded the fly, and a third attempt had no different result. It seemed to me that if I went on repeating the same manoeuvre the fish would become suspicious and go away, and therefore I withdrew my fly and sat down on the railway-line to think out some other move.

While I was considering whether to try another fly, I heard the unmistakable plop of a feeding fish and, looking quickly through the sleepers, I saw the disappearing rings in the water where my friend had undoubtedly

broken the surface to take something. I watched him intently. A struggling daddy-longlegs appeared round the end of the pier and floated slowly over him. He ignored it utterly. Within a few minutes another insect, unrecognisable from my viewpoint, passed over him, and he paid no attention to that either, but merely hunched his shoulders again and looked more sulky.

Then suddenly he turned in towards the pier, waited a second or two, and I saw his mouth break surface just where the water touched the pier. There was a satisfying plop, some rapidly disappearing rings on the surface of the water, and the fish resumed his original position a few inches away from the pier. I could not see what he took, but evidently it was something that fell from the brickwork into the water. It seemed that from his position he could actually see the insect on the brickwork and was awaiting it when it fell in.

This was my clue for my next attempt. Cautiously I let my fly down alongside the brickwork, until it was two or three inches above the water, and about level with the fish's nose. The big fish showed an immediate interest; he rose higher in the water and sidled towards the pier. Hardly daring to breathe, I released two more inches of line and let my fly drop on the water. Without any hesitation the fish turned towards the pier, opened his mouth, and my fly was engulfed!

THERE was no need to strike. My fly only just reached the water, and as the fish took it and turned back to his position the line was taut enough for the hook to strike home. The effect was instantaneous. As soon as the fish felt the prick of the hook, he turned with one flail of his great tail, and a swirl in the water, and fled downstream. The line was whipped out of my finger and thumb, which were still holding it, and was torn off the coils which I had so carefully laid out on the sleeper by my side.

As I had expected, the fish made straight for the weed-bed downstream, and did not check his rush until he got there. Ten yards of my line disappeared in a flash, and then the last two yards remained coiled on the sleeper. I reeled in quickly and gave a cautious tug on the line to feel if the fish was still there. There was a satisfactory resistance, but whether it was the fish or the weeds, I could not tell at

that stage. I now could only pray that the fish would remain securely hooked, and in the weeds, until I was in a position to deal with him.

As quickly as I could, I lay flat on my stomach and started on the difficult manoeuvre of passing my rod through the sleepers and outside the bridge. It proved even more difficult than I had anticipated. The web of the girder was deeper than it had appeared, and although I could touch the butt of my rod with my fingers, try as I would I could not get a grip of it. After several frantic but unavailing efforts, my arms and fingers were aching so much that I had to rest, and therefore I propped the butt of the rod against the girder-flange under the bridge, with the point projecting at an angle through the sleepers and over the railway-line.

It was at this moment that a familiar sound gradually impinged upon my consciousness, and it slowly dawned upon me that what I was hearing was the whistle of an oncoming train. I looked up startled, and to my horror saw a train which was giving its customary toot as it rounded the bend down the line before approaching the level-crossing at the farm.

The bend was about four hundred yards away, and the usual speed of the train was about twenty miles an hour, and therefore I had about forty seconds in which to decide what to do before the train was on the bridge. I may say that I did not make that calculation at the time, but merely realised that I had to do something pretty quick! One can think quickly in these circumstances, and, anyway, there were not many choices. If I left my rod where it was and walked off the bridge, the rod would be smashed. I could drop my rod in the river, and hope that it would not be damaged against the pier, and that I would be able to recover it afterwards, but this seemed to offer a poor chance of catching the fish, which, after all, was the main reason why I had taken all this trouble. Or I could hold on to my rod and go into the river with it.

It took me only about ten seconds to decide on the last plan, but by this time the engine-driver had seen me on the bridge and was letting off a series of frantic blasts on his whistle. As quickly as I could, I wriggled down between the sleepers, let go with one hand momentarily while I gripped my rod and held it vertical, and then, feeling very much like a parachutist leaving an aircraft, I let go and dropped.

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I landed with a terrific splash in about three feet of water, but luckily succeeded in retaining my balance, and did not damage my rod. While I was collecting myself, I was nearly deafened by the thunder of the train crossing the bridge just over my head. From under the bridge I could not see the engine-driver, but as he passed he let off a final furious toot on the whistle, whether in rage or encouragement I do not know. I wondered whether my coat was still intact, or whether it had been sucked off the railings by the rush of air as the train went by.

THE bridge was too low for me to raise my rod, and so, not daring first to feel if the fish was still on, I waded upstream as quickly as possible so as to get into a position where I could play the fish. I could not, unfortunately, wade downstream, and so get nearer to the fish, as the water below the bridge was too deep. As soon as I came out from under the bridge I had to duck under the cattle wires, and then was in clear water, but as my line, perforce, ran under the cattle wires I still could not raise my rod vertically, but had to hold it horizontally so that the line did not foul the wires. This was a complication which I really had not foreseen when I was on the bridge. Anyway, the first thing to do was to find out if I was still in contact with the fish.

I had by now about fifteen yards of line out, and I first cautiously reeled in to take up the slack, hoping that I would not find that the whole of my line came tamely in. It did not, for after I had reeled in about a yard there was definite resistance, and so I tentatively handlined to feel the reaction. At first there was nothing but a dead pull at the other end, and I feared that after all I was only tugging at the weed-bed, or some other snag, and then suddenly I was thrilled to feel the unmistakable jag of an annoyed and sulky fish.

I could do nothing with the fish until I could coax him out of the weeds, and there therefore ensued a grim tug-of-war. It was a trial of strength to see which would yield first—the fish, the hold of the hook in his mouth, or my 3x cast.

I put on all the pressure I dared, and the fish responded with a series of sullen and vicious jags, each one of which brought my heart into my mouth. At the end of several minutes of this I had not gained a single inch of line, and it began to look like a stalemate.

I knew that a sulky and obstinate salmon will sometimes move if the strain on his mouth is released, thinking that he is free. I did not imagine that my trout would fall for an old trick like that, but at least it was worth trying, since I did not appear likely to win the tug-of-war. I therefore increased the pressure slightly for a few seconds and then suddenly let the line go completely slack. I waited for about half-a-minute and then cautiously handlined in the slack. I brought in the original yard which I had let go, then a second yard, and then a third before I felt the fish again. The trick had worked! The fish had moved two yards at any rate, and two yards nearer to me.

I hastily took the slack up on my reel, and felt the fish again. There was much more life; increasing the pressure brought an immediate and vicious reaction, and not just a sullen resistance. I think that the fish had moved laterally as well as nearer to me, and therefore the strain was tending to pull his head sideways to some extent, whereas previously he had been dead below me. I had to stop handlining and play the fish on the rod, which meant holding the rod horizontally out to my right side with the reel underneath. This is quite the most awkward position in which to play a fish that I have ever met, and of course the power of the rod was lessened.

I still maintained the maximum strain which I thought the cast would stand—happily it was a new one—and gradually, literally inch by inch, I gained line. I had to fight bitterly for every inch, and I put more strain on the cast than I ever dreamed that it would stand, but from the increased violence of the fish's reactions I judged that he was now clear of the weeds, and I had to take every risk to prevent him from getting back there again.

The fish had by now been resisting the maximum strain of the cast for at least ten minutes, and at last he was beginning to tire a little. He still fought doggedly and viciously, and several times the line which I had so hardly won was lost again. But as he began to tire he did not like his head downstream for long in the sluggish current, and he never quite got back to the weeds in any of his rushes. Each time I managed to regain the lost line and a few inches more, and now there were only about eight yards of line out and I could see the commotion as the fish broke water just below the bridge.

My immediate concern was to make sure

THE FISH

that the fish came upstream on the same side of the pier as my line. If he fouled the pier, the rough brickwork would cut through the taut cast in a flash. I waded further over to my right, so that I was applying more side-strain away from the pier, and the battle went on. Another yard of line was painfully won, which successfully brought the fish up on the right side of the pier, and now he was beginning to give ground, or rather water, more rapidly.

He was starting to roll, showing his flanks periodically, and I quickly gained another few yards, until the fish was past the cattle wires. Now, at last, my line was clear, and I could hold my rod vertically, which increased the strain on the fish, and released the strain from my arms, which were getting very tired from the peculiar position in which I had had to work.

The fish now began to tire rapidly. If everything still held, the battle appeared to be nearly over, until I remembered that my net was either hanging on the bridge, or had been swept away by the train, and I would have to tail the fish.

Keeping the strain on, I waded a few yards backwards into the ford, where the water was only about six inches deep. The fish made one more gallant effort and took off a couple of yards of line in a last desperate attempt to break downstream, but then he was beat. He rolled over on his side, and I reeled in until he was almost at my feet. As I brought him there, the hook pulled out, and my line hung slack! If this had happened a minute earlier, he would have beaten me. But now it did not matter; there he was, rolling in the shallows, and I only had to pick up a stone from the river-bed and tap him on the head, and he was mine.

WHAT a fish he was, and what a fighter!
As he lay helpless on his side in the

shallow water, I stood above him and admired his great tail and dorsal fin, and the light of the evening sun on his golden, speckled flank.

He was the biggest trout I had ever caught; indeed, the biggest I had ever seen outside a glass case. I wondered how much bigger he might grow—if he had the chance. I thought also, that I was going away the next day, and that this would be the last day of the season for me.

I slowly put down the stone which I had picked up to use as a priest, and then wetted my hand, and turned the fish off his side with his nose into the gentle current. At first I thought that I was too late; when I let go, the fish rolled lifelessly over again. But his gills were still moving, and I persevered. After some minutes there was a feeble movement in his tail, and I moved him a little further out where the water was somewhat deeper and the current stronger. Little by little life came back to him; his gills drew in the oxygen he needed, and the beat of his tail, though still weak, grew stronger. When I took away my supporting hand, he no longer rolled over.

I watched him for another few minutes, and then very slowly he moved his tail, and nosed out into deeper water. Gradually he dropped back downstream, still keeping his nose to the current, until he got to the deeper water under the bridge. There he turned, and swimming more strongly passed out of my sight towards the bed of weeds.

I am quite certain that that fish weighed 4 lb. or over. I am equally certain that no one will ever believe that I caught it, because there was nobody there to see. But if anybody should ever catch it again, they will know that I caught it, because as it lay at my feet I took out of my pocket my folding-scissors and set my mark on it by cutting off the last sixteenth of an inch of the upper tip of its tail. At least—they will know if they read this, or if fish do not grow new tails!

Old Age

*To doze and dream of friends long dead
And, wakened by a crackling ember,
To hear oneself talk of the past—
And know that none but ghosts remember.*

T. STEPHANIDES.

Honey

Our Most Perfect Food

DAVID GUNSTON

THE oldest human food is generally assumed to be milk, or primitive bread, but man knew the rich sweetness to be had from wild bees long before he kept cattle or learnt the art of baking. To this day, honey is the golden wonder of all our foodstuffs, the sweetest substance there is, and still the most perfect and easily assimilated article of diet. Yet even after some fifty centuries of regular use by man honey still retains something of its early mystery, baffling science by the very simplicity of its food value. Given all the right ingredients on a laboratory bench, a chemist can no more make honey than he can make milk; honey's great health-giving quality lies in its natural source.

In its original state in the flower, nectar is a watery fluid with a marked scent of its source-plant, but after transportation by the worker bee, and handling by the younger bees in the combs, where it is laid well mixed with supplies from other flowers, it becomes thicker, sweeter, and more nutritious. Hive honey differs mainly from the original nectar in having a lower water-content and in the swift transformation of sucrose sugars into the two main constituent sugars, dextrose and levulose. Various honeys show marked differences in their ingredients, just as different races of bees may produce individual types of honey from the same species of flowers, but these two sugars are always constant.

As well as these sugars, average honey also contains a small proportion of water, some albumen and cane-sugar, tiny quantities of dextrines, gums, volatile oils, digested fats, and, depending on its clarity, numbers of actual pollen grains. In addition, honey has a small mineral content, the size of which bears but little relation to its importance, comprising, as it does, iron, silica, copper,

potassium, sodium, sulphur, aluminium, manganese, chlorine, calcium, phosphorus, and magnesium, some of which have been shown to have a beneficial effect upon the hæmoglobin. For long it was held that honey had no vitamin content, but tests have proved this to be incorrect: pollen is rich in vitamin C, richer than most fruits, but variable amounts are retained in the resultant honey, although all but the most inferior batches contain good supplies of this vitamin.

Honey is the richest, and cheapest, known source of levulose, its most valuable ingredient and a substance normally more than twice as sweet as cane-sugar. Combined with the other simple sugar, dextrose, a much commoner ingredient, levulose helps the body to build up its vital reserves of glycogen and blood-sugar, which are later transformed into heat and energy. Being assimilated 100 per cent into the blood-stream, honey is therefore invaluable for counteracting the effects of exertion—a fact known to athletes since the earliest times.

Over all the other forms of sugar we consume, honey may be said to have the following unique advantages: it is non-irritating to the digestive tract; it places no strain upon the kidneys, therefore lessening tissue destruction; it provides an immediately available source of energy with the very minimum of effort from the digestive processes; it enables the consumer to make good the body losses from severe exertion almost immediately, and it is gently and naturally laxative.

CANE-SUGAR, like salt, has but one main universally-recognised taste, but honey may have an enormous range of flavour

variations, dependent on each of the 10,000 or so species of plants or trees which rely upon bees for their pollination. When properly ripened, honey destroys all harmful bacteria which may settle upon it, even when exposed to external contamination. It has the strange property of absorbing all the moisture in everything with which it comes into contact, and as micro-organisms cannot live without a modicum of moisture, honey swiftly kills them. In a series of microscopical tests the typhoid germ was seen to die within forty-eight hours of contact with pure honey, and the dysentery bacillus was dead after only ten hours' contact.

There is no satisfactory and foolproof way of adulterating pure honey without any chance of scientific detection, although many attempts are made. If it is skilfully diluted with water, it merely ferments. If it is contaminated with added cane, maple, or maize sugar, it will eventually separate out again. If it is blended with other sugars, it merely thickens and turns solid.

A fairly good simple test for pure, unadulterated honey is to pierce the lid of its jar and then tilt the jar on its side and watch what happens. Pure honey will almost always trickle very slowly through the hole, making snaky coils on a saucer placed beneath, but diluted honey will not do this. Nevertheless, cheaper brands of honey may be adulterated with cheap invert sugar, or otherwise tampered with, and so-called 'British honey' has been known on occasion to contain grains of pollen from flowers native only to parts of the Commonwealth! Blended honey is, of course, another matter, being merely a skilful mixture of different types and flavours of honey, designed to make a uniform product for the market.

LED primarily by the fragrance, and then by the colour of the flowers, the bees, which are colour-blind to reds, set about their honey-making with an industry as unsurpassed in the human world as their method of making the honey is unique. Three times more nectar than honey is originally gathered, and it takes the nectar from about 2000 flowers to produce a tablespoonful of honey, while a pound of honey safely encombed in the hive represents a minimum of 37,000 bee trips, or a mileage of perhaps 50,000—or twice round the globe—for a hiveful of bees making their average of

about 100 lb. of honey in a season. Yet from an average flower a bee extracts only about $\frac{1}{4}$ -grain of nectar.

Honey is most commonly and attractively produced from clover blossoms, and the bulk of Empire and North American honey comes from this source. Clover honey is light in style, and sainfoin, mustard, turnip, and charlock are also excellent for light or medium-light honeys. The finest dark honey comes from heather, fruit blossoms, bean, blackberry, and buckwheat. Those flowers we consider the most sweetly-scented may produce the, to us, most fragrant product, but not necessarily the best. First-rate honey is made from such unlikely flowers as dandelions, crocuses, acacia, milkweed, blueberries, willow, golden rod, wild raspberries, and sycamore. Honey may vary from creamy-white and golden shades to blackish amber, purplish brown, or sea-green.

The ancient Athenians gathered their finest honey from the slopes of Mount Hymettus, where the wild thyme gave it a distinctive flavour. Maltese honey, famous throughout the Middle Ages and still excellent to-day, owes its characteristic flavour to orange blossoms: the very name Malta, formerly Melita, derives from the Latin *mel*—honey. The luxurious granular white aromatic honey of Narbonne, in France, owes its special charm to sainfoin blossom, while the strange but toothsome wood honey of Germany's Black Forest is made from the gummy exudations of the pine-trees. Wild raspberries give honey a ruby tint, sage gives it a roughly sweetness, heather invests it with a deep purplish hue and a markedly high mineral content, and alfalfa lends a tang all its own. Acacia honey gathered in Hungary is probably the most aromatic of all, and Brazilian honey the darkest, almost black, while from parts of Africa comes a pale-green honey. The rarest honey of all is that culled from the white bells of ambrosia, or wormwood, and, strangely enough, there is even a poisonous honey obtained in spring by the wild bees of eastern Nepal from the flowers of certain mountain rhododendrons.

Allusions to bees and honey abound in the Bible and in the mythology and religious lore of almost all races. Democritus, the Greek philosopher, and Alexander the Great, among many of their less famous contemporaries, were so aware of the value of honey that they left instructions that they were to be buried

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in it. A royal Egyptian tomb opened in modern times was found to contain earthenware jars of honey at least 3300 years old, darkened and clouded, but still pure and edible. It was no chance that the Promised Land was to be flowing with milk and honey—wild honey, that is—and the fact is mentioned no fewer than twenty-one times in the Bible.

It is not generally known that there are to-day two distinct grades of honey, the rough coarse-flavoured industrial product and the fine, delicate table delicacy. Only a comparatively few flowers yield nectar that makes clear table honey, but many others enable the bees to produce dark, rank-tasting honeys put to good use in making cakes and brown malt bread, curing, moistening, and mellowing

tobacco, and preparing cough linctuses, skin lotions, ointments, cosmetics, soaps, and many pharmaceutical preparations, official and other.

But it is as a food that honey is so valuable and important, whether for adults seeking a sweetening agent with no restrictions or perhaps the finest carbohydrate food available, children building sturdy bones and teeth, athletes requiring an immediate reserve source of energy, or diabetics needing a safe form of sugar. The medicinal value of honey has long been recognised, and is still to-day being explored, doubtless to yield up more secrets before every possibility is explored. Meanwhile a wider use of honey in everyday diet, combined with the strictest possible insistence upon quality and purity, can have nothing but beneficial effects upon both individual and public health.

Saviour of the Sick-Bay

James Lind, the Father of Nautical Medicine

R. C. TRENCH

IN the stifling, airless gloom between decks in H.M.S. *Salisbury*, cruising against the Spaniards in 1746, lay twelve scurvy-stricken seamen whom the surgeon had put on experimental diets. Two who received oranges and lemons made miraculous progress. Next in order of success were two who were given cider. Such pleasant prescriptions were doubtless appreciated by their recipients, but history does not recall the comments of the other human guinea-pigs, who were given to drink sea-water or 'a concoction of garlic, mustard, horseradish, gum myrrh, and balsam of Peru, with a mixture of barley-water, tamarind, and cream of tartar'!

The young surgeon in charge was James Lind, who had entered the Navy in 1739 at the

age of twenty-three. A year later, Commodore Anson's squadron set out on its epic voyage round the world. In fifteen weeks of battling round the Horn scurvy killed a third of Anson's men. In the sixteen weeks' voyage from Mexico to the Pacific island of Tinian he lost half the remainder. While the sick lay too weak to move, the rats ran over their hammocks, eating the men alive.

Anson's losses fired Lind with a determination to conquer scurvy. Although the disease had exercised the minds of countless seamen and of many doctors ashore, no trained physician had previously studied it at sea. With a thoroughness hitherto unknown afloat, Lind set about discovering its causes and cure. His conclusions from such

SAVIOUR OF THE SICK-BAY

experiments as those in the *Salisbury* were embodied in his famous work, *A Treatise of the Scurvy*, published in 1753, and eagerly accepted abroad. In it he pointed out that scurvy 'proved a more destructive enemy, and cut off more valuable lives, than the united efforts of France and Spain.' Yet so deep-seated were ignorance and prejudice that it was not until forty-two years later—a year after his death—that lemon-juice was issued to the Navy.

LIND turned his attention to every other ailment incident to seamen. He found that their commonest complaints were fevers, internal injuries caused by accidents, rheumatism, and dysentery. The unhealthiness of seamen's lives may be judged from the opinion of Lieutenant Robert Tomlinson, who devoted twenty years to the study of contemporary manning problems. In 1774 Tomlinson wrote to the Admiralty that few seamen were fit for any employment, even ashore, after the age of fifty. Between 1774 and 1780 over 18,000 were lost by sickness, as opposed to barely 1250 by enemy action.

Apart from diet, the main causes of sickness afloat were dampness, overcrowding, and lack of ventilation. The first two were insoluble problems. 'Wooden ships' bilges could never be kept dry. Unseasoned timber was often used in their building and the ships were built in the open, unprotected from the rain. Many, therefore, started to rot even before they were completed.

Moreover, men-of-war must always carry large crews, because it takes many more men to fight a ship than it does to sail her. Lind, however, was among the first to remark that the bigger the ship the worse the overcrowding and hence the incidence of disease. Thus a first rate, such as the *Victory*, which was 180 feet long, carried over 800 men, while a third rate, only twenty feet shorter, needed only 500 to 700. Ventilation became a problem as soon as a ship was in any sea rough enough to necessitate the closing of the gun-ports.

While Lind was at sea, two attempts at forced ventilation were carried out, both of them primitive forerunners of the modern ship's system of fans and trunking. The first was called Hales's Bellows, and was a hand-operated contraption, designed to supply fresh air and to exhaust the foul from between

decks. The second was intended merely to exhaust the foul air and depended on heat-convection currents set up by a ship's copper boiler. It was known as Sutton's Pipes, and Lind advocated the use of such contrivances, knowing as he did the dangers of foul air in overcrowded ships. The efficacy of the pipes was, however, questionable, as Lind relates that when the *Sheerness* arrived triumphantly at the Cape of Good Hope without a sick man on board, it was discovered that the carpenter had forgotten to open the cock of the exhaust-pipe, and so the contrivance had been useless! The real reason for the crew's immunity had been an unusually well-balanced diet.

LIND noticed that, as soon as the press-gangs were active, typhus spread like wildfire through the Navy. He soon traced the infection to the wretches pressed from gaols. He wrote that the guardship at the Nore, which housed these unfortunates, was 'a seminary of contagion for the whole fleet'. In 1758, ten years after his retirement from the Navy, Lind was appointed Physician-in-Charge of the newly-built naval hospital at Haslar, near Portsmouth. Here he continued his researches and, although he never discovered that lice were the carriers of typhus, he traced the infection to the clothes of men pressed from gaols and advocated that they should be burned and the men issued with new.

Another disease whose origin Lind nearly succeeded in tracing was malaria. He had no scientific equipment except the simplest instruments, and no facilities except the ill-smelling bowels of ships in which to work and write. Daylight and fresh air never penetrated his quarters and the use of lanterns was strictly controlled because of the risk of fire in a wooden ship. Lind's resources were painstaking observation and such experiments as a humane man could make on his suffering shipmates. He never realised that malaria was carried by the *Anopheles* mosquito, but his acute observation led him to the correct preventive measure, for he ordered the covering of gun-ports on the shoreward side of ships near the land with an off-shore breeze blowing.

AT sea Lind experienced the sailing-ship's perpetual shortage of fresh water, and

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while at Haslar he applied his mind to inventing a distiller. In 1762 he claimed to have found a good solution, for it needed no special apparatus, but only gear found in all ships—namely, a small boiler, a kettle, and a musket-barrel. The boiler was filled with salt water and the kettle placed upside down on top of it, with its spout in the end of the musket-barrel. Steam from the boiling seawater emerged from the spout and condensed in the musket-barrel, which was cooled by being passed through a tub of sea-water. This contrivance produced a gallon of fresh water every three hours, which was a mere drop for a ship's company but could be of inestimable value to castaways or to the sick on board. Ten years later the Admiralty ordered the fitting of distillers, such as can be seen in the *Victory*, to all ships.

It was not until a century after Lind went to sea that a standard uniform was introduced for seamen of the Navy. Lind proposed its introduction for hygienic reasons—to replace the foul clothing of pressed men. He also anticipated the modern sailor's cap-ribbon, for he suggested that each man should wear a badge carrying the name of his ship. Lind shrewdly pointed out that seamen in uniform would find it more difficult to desert, and, when it is recalled that between 1774 and 1780 the Navy lost by desertion about one quarter of the men it raised, the wonder is that the suggestion was not adopted immediately.

Obvious though they seem to-day, few of the hygienic measures which we take for granted were even considered in Lind's day, except by a few enlightened officers. In 1757 Lind published *An Essay on the Most Effectual Means of Preserving the Health of Seamen in the Royal Navy*. It was a first-class manual of hygiene afloat and contained scores of common-sense rules covering diet, ventilation, dryness, and personal cleanliness. It also contained detailed treatment for the many ailments to which seamen were prone. In 1768 it was followed by a treatise on tropical medicine.

Fortunately Lind's teaching did not fall entirely on deaf ears, for he had the satisfaction of being vindicated by one of the great seamen of all time—James Cook. In 1771 Cook set out on his first voyage of exploration. His Surgeon's First Mate was William Anderson, a brilliant young man, whose early death robbed the Navy of one of its most

promising surgeons. Anderson gave Lind's suggestions a thorough trial and so effective were they that, when Cook's second voyage ended in 1775, only one man had been lost by disease in the three years of its duration—an unheard-of feat.

IN 1783, after twenty-five years of service, Lind resigned his position at Haslar. In his first two years there he had treated over eleven hundred scurvy cases and thousands of others, ranging from leprosy to feigned ailments. The success of his preventive measures was unrecognised in his lifetime, but, four years before his resignation, had he but known it, there entered the Navy the man who was to become the instrument of his reforms. This was Gilbert Blane, who had the inestimable advantage of the great Rodney's patronage.

Lind died in 1794 and was buried in the beautiful little Norman church which stands inside the massive walls of Porchester Castle. One year later, acting on Blane's suggestion, the Admiralty ordered the issue of lemon-juice to the whole Navy. Two years after this reform, when Earl Spencer, the First Lord, visited Haslar and asked to see a scurvy case there was none to show him.

Blane's observations supported those of Lind to the hilt and he freely acknowledged the source of his inspiration. In 1782, after a year's trial of dietary and hygienic measures, all of which had been advocated by Lind twenty-five years earlier, Blane reported that the rate of deaths in the West Indies squadron had been reduced from one man in seven to one in twenty. Supported by a patron of Rodney's calibre, such results could no longer be ignored by Whitehall.

Very little is known of Lind's character, appearance, and private life. An unassuming modesty was probably the reason why his work was so long unrecognised in the Navy in an age when self-advertisement and patronage were necessary for the advancement of even the worthiest. Furthermore, his ideas, which seem so evident to-day, were too revolutionary to be accepted readily by a notoriously conservative profession. However, only three years after his death, another distinguished disciple, Thomas Trotter, author of the comprehensive *Medicina Nautica*, paid Lind the tribute of acknowledging him 'The Father of Nautical Medicine.'



Life Begins for Tip

GREENJACKET

MY name is Tip, and I was born in the verandah of a bungalow overlooking that turgid, evil-smelling expanse of the lower Ganges known as the river Hooghly, in far-away Bengal. It was quite a small, unpretentious bungalow, belonging to a minor railway-official of the East Indian Railway. At no great distance away was the echoing vault of the terminus of that railway, from which, all day, and for the greater part of each night, rose one great, pulsating wave of sound, like the disturbance of some gigantic beehive. This was the voice of the sweating, gesticulating, and endlessly milling crowd of would-be travellers who thronged the forecourt of the station premises, surged about the booking-offices, and overflowed on to the numerous platforms.

Running through this all-pervading roar, like threads through some heavy fabric, came the shouts and curses of the drivers of unwieldy bullock-carts, the creak of their wooden wheels, the honking of innumerable taxis, the squabbling of coolies, and the shrill cries of itinerant vendors of food and drink. Then, suddenly, splitting the sweltering atmosphere like a knife, would come the distant shriek of some locomotive and the roar of escaping steam, and this would prove

the last straw for me. Trembling and afraid, I would cower into the darkest corner of the box in which I lived, or bury my head beneath my mother, or any of my brothers, or sisters, who happened to be handy.

I had two brothers and two sisters, all older than me and very much bigger. I resented this, not only because the others always used their weight to hustle me aside at meal-times, but also because the master of the house seemed to look down on me in consequence. Several times I heard him refer to me as a runt. I didn't know what it meant, but it sounded nasty.

My mother was a black-and-white smooth fox-terrier. She was a bit tubby, and with no pretensions to being an aristocrat, but she was rather sweet. My father I never knew, and we were never encouraged to ask after him. I suspect that he was 'not out of the top drawer,' as the saying goes, because, when it was advertised in the *Statesman* that there was a fine litter of fox-terrier pups for sale in Howrah, the price quoted was only ten rupees, which indicates that either the master of the house was a philanthropist, which I doubt—I never did like that man—or that there was a bar sinister somewhere.

I, myself, was white, with a black-and-white

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head; not one of those long heads you see about, but rather snubby and small. People used to say that I looked 'as sharp as they make 'em,' whatever that is. I had a little black patch on my saddle, and my tail was black. Well, what should have been my tail. Unfortunately, when the fool of a sweeper who docked our tails, as is the custom in India, came to me, he made a proper mess of the job, leaving me with a tiny stump, not more than a couple of inches or so in length. This made it very difficult to operate my tail when I was pleased, and made me self-conscious when people talked about it. As I have said, I was very small, but neat and, when it came to a rough-and-tumble, my footwork left my brothers and sisters standing.

From my earliest days I had realised that I must rely on brain rather than brawn if I was to get anything out of life—in fact, if I was to keep alive at all. Every mealtime I was hustled aside, usually by my eldest brother, a great clot named, and rightly so, Moti—the fat one. Do what I might, I could never get a snack until he was replete, and by that time there was precious little left. Then one day I found the answer. We were having an early morning rough-and-tumble, and Moti, as might be expected, set on to me and got me down. He began to worry me and really hurt. Do what I could, I could not shake him off. I screamed and cried, but it was no good. Then, somehow, we got turned about and Moti got hold of my back leg. The only way I could retaliate was to bite him in the stomach. As I have said, Moti was paunchy; my teeth were like needles. He howled; I held on. He began to scream; I got a better grip. He yelled blue murder; I began a sort of screwing action. My two sisters and my other brother joined in the row, on one hand urging me on, on the other giving Moti good advice, until the woman of the house rushed in to find out what all the commotion was about. 'Why, you naughty little runt!' she cried. 'I won't have you bullying poor Moti.' There it was, runt again, and me bullying Moti! I was furious and went off, and began to chew the leg of a chair. Later in the day this caused another scene. I was beginning to get fed up with life. However, I had learnt how to deal with Moti and the others and, thereafter, a nip in the right place usually ensured my fair share of rations and no bullying. Moti seemed to think I employed foul tactics, but a lot I cared for his opinion!

ONE evening—it must have been when I was nearly three months old—the sweeper woman, who used to look after us, parted the bead curtain at the end of the verandah and called out in her high, nasal voice: 'Memsahib! Memsahib!'

'What is it?' inquired the woman of the house.

'There's a gentleman here!' replied the sweeper woman. 'A military officer. He wants to buy a puppy.'

The woman, hastened to the door and I heard some talk. 'You would like to buy a puppy?' she said. 'Then, please come this way.'

She came in, followed by a young British Officer, in uniform. In a moment I was on my feet. 'Look out!' I yelled. 'Strangers!' I yelled. 'Help! Strangers! Thieves!' My voice wasn't all it might have been, as it was inclined to change key every few yaps, but I put plenty of vigour into it and soon, what with my mother and the others joining in, pandemonium broke loose.

'Quiet! Quiet!' admonished the sweeper woman.

'Stop it at once! Stop that horrible noise, at once!' commanded the woman of the house.

The young officer, however, appeared to be thoroughly enjoying the noise. 'Guarding, eh?' he said approvingly. 'Good show. And this little rascal started the racket.' He bent down and picked me up by the scruff of my neck.

'Oh, that little runt!' said the woman. 'She's at the bottom of any mischief. I'll be glad to see the last of her.'

'I'm not a runt!' I retorted, furiously. 'I may not be as big as Moti and the others, but I'm not a runt, and I'm clever.'

'Runt,' said the boy smiling—he was almost a boy. 'It's not a runt. It's a great big tough hound guarding its bungalow—Hallo, fat boy!' he went on, turning Moti over with his foot. 'No one been docking your rations, anyway!'

'Boy!' I yelled. 'Officer! Don't take any notice of Moti. He's only a clot.' I licked his hand.

'What's all the noise about, you little stiff?' he asked. 'And what have they been doing to your tail?' He took it between his finger and thumb and gave it a little pull, roaring with laughter the while.

I didn't know what to say. I was very

sensitive about that stump. However, I gave it a wag to show it worked.

'Yes, I can see it works,' he said, laughing again, while his blue eyes crinkled up at the corners as he looked at me. 'What I want to know is how I'm going to pull you out of a hole by a thing that size?'

One by one he picked us up and examined us, whilst I watched the proceedings, trembling in every limb. Then, his mind made up, he turned to the woman. 'Runt or not,' he said, 'this is the one for me,' and he picked me up. 'I'll take her.'

Shall I ever forget that moment? Oh, how my heart swelled with pride! To have a master all to myself would have been good enough, but to have this fair-haired, sun-tanned young officer, with his laughing eyes and kindly smile, who looked like a god to me already, was beyond belief, to say nothing of having been chosen in preference to my brothers and sisters. 'Moti,' I shrilled, 'what do you think of that? Laugh that off! Go on, just laugh that off!'

The sweeper woman looked pleased. 'Very clever,' she beamed.

'As you like,' said the woman of the house. 'She's certainly the cleverest of the lot.' Some money passed.

'Come on, you little stiff,' said my new master, tucking me into the breast of his khaki tunic, 'we'll have to get a move on or we'll miss the Punjab Mail—and then, what?—Good-bye and thank you,' he said to the woman. A rupee was slipped into the palm of the sweeper woman, whose smile now stretched from ear to ear, and we clattered out of the bungalow into the night.

SOON we were threading our way through the bustling, yelling throng of coolies, in search of the train which was to bear us for two days and three nights across the arid plains of India to the bleak hills of the North-West Frontier.

An official directed my master on his way and advised him to consult the cards attached to each First Class carriage, on which were inscribed the names of the passengers for whom they were reserved. Halfway down the row of carriages my master appeared to sight a familiar figure, for he hastened in its direction. 'Gagbir!' my master called out.

The figure, which had been sitting on a mound of luggage, sprang to attention, and

gave a crashing salute. I looked with astonishment at the squat, square figure, with *café au lait* complexion, flat Mongolian features, and close-cropped bullet-head, so different from the Indians I had been accustomed to see. I was to learn that it was the face of a typical fighting Gurkha. He was clad in khaki, like my master, but in shirt and shorts, surmounted by a khaki felt Gurkha hat. 'Everything present and correct,' he reported to my master in Gurkhali, and indicated the pile of luggage he was guarding.

'Good,' my master complimented him in the same language. 'Put the bedding in the compartment.'

Gagbir was about to pick up the valise of bedding and put it in one of the compartments, as my master had directed, when his eye fell on me, peering from inside his tunic. In an instant the immobile features broke into the widest of grins and a torrent of interested questions poured forth. He wanted to know if I had been bought, if I was going to travel with them, how old I was, and what was my name.

My master seemed a bit nonplussed by this last question. 'Name?' he said, considering. 'I haven't really had time to think of that.' He pulled me out of his coat and handed me over to the Gurkha orderly, who began to purr over me and cuddle me, as if I was a baby. I took to him straight away. I knew I was going to like Gagbir.

'I know,' said my master suddenly. 'See this little tip of a black tail? Well, we'll call her Tip.'

'Teep,' exclaimed Gagbir, not a little mystified by my master's reasoning. 'Teep. It's a nice name!'

But my master was beginning to get impatient. 'Get a move on, Gagbir,' he ordered in Gurkhali, 'the train is due out in about five minutes.'

Gagbir gave me back to my master and started to heave the valise into the compartment. Then something seemed to strike him, and he spoke to my master and jerked his head in the direction of the compartment.

'Oh well, never mind,' I heard my master say. 'I can't expect to have the whole compartment to myself.' He threw open the door and peered inside, then paused for a moment as if undecided. The compartment had four berths, two above, and two below. On the two top berths, reaching almost to the ceiling, was a vast array of assorted luggage. There

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were tin boxes, rolls of bedding, empty kerosene-oil tins, numerous cooking utensils, brass and earthenware vessels of all shapes and sizes, several bunches of bananas, and an enormous basket of mangoes, the sweet, sickly smell of which pervaded the carriage.

It was not at this gigantic array of lares and penates, however, at which my master was looking with some trepidation, but at the occupant of one of the lower berths. I poked my head out to get a better look, and then drew it back hurriedly. The figure on the lower berth was that of quite the largest man I had ever seen and, to judge by his attire, an inhabitant of Bengal. He was dressed simply, in a white, collarless cotton shirt and a loin-cloth, or dhoti, and a pair of purple cotton socks, held in place by red suspenders, adorned his otherwise bare legs. His enormous paunch seemed to spread majestically upwards, until it merged into the lowest of several chins. His longish black hair was heavily oiled, and a pair of shrewd brown eyes peered from behind enormous spectacles. He was lying at full length on the berth, with his feet up, wagging his toes speculatively, whilst poised on his paunch was a large plate of curry. As we entered, he dipped a piece of chupati into the curry with his fingers and transferred it to his capacious mouth. My nose gave a little wiggle. The stuff smelt a bit, no doubt about that. In fact, it seemed to be putting up pretty stiff opposition to the aroma from the mangoes, and it was some time since I had my dinner.

GAGBIR was laying out my master's valise and my thoughts must have reached him by telepathy, for he stopped and asked if he should get me some milk. My master considered the point. 'I expect she's hungry,' he said, 'but I don't want any accidents in the night. Better leave it, I think.'

The Bengali had been listening to the conversation and watching the proceedings with no great favour. Now he turned towards my master. 'You are in employment of Gorment of India—Military Department, no doubt?' he said, ejecting a stream of betel-nut out of the window through his discoloured teeth.

'Yes, I'm in the Indian Army,' replied my master.

'Then,' said the Bengali weightily, 'your goodself will be cognisant with rules and regulations, no doubt?'

My master appeared puzzled. 'Rules and regulations. What rules and regulations?'

'Rules and regulations of East India Railway Co., my good sah. What else?' said the Bengali with asperity.

'Well, what about them?' inquired my master, still looking bewildered.

'Sah,' blustered the Bengali, 'I would inform your goodself that I am Mr P. K. Mukerjee, Barrister-at-Law, and, as such, am fully cognisant and conversant with aforesaid rules and regulations of railway company in question.'

'Well, what's the matter? What are you getting at?' asked my master, not too pleased at the Bengali's hectoring tone.

'What is matter! What is matter!' exclaimed Mr Mukerjee with rising wrath. 'Darg is matter.' And here he fixed me with baleful eye, and pointed accusing finger, as I peered out from beneath my master's arm. 'It is intention of your goodself, no doubt, for darg to travel in compartment?'

'Well, yes, I did think of letting her sleep under my berth,' my master said.

'Then, that is what I am telling!' exploded Mr Mukerjee. 'It is *non possumus* and *ultra vires* for darg to travel in compartment! Yes, by Joves!'

'Oh, but this isn't a dog, it's only a little puppy,' my master remonstrated, mildly.

'Darg is darg,' pointed out Mr Mukerjee, ponderously. 'Darg is darg.'

'Yes, but this is an exceptional case,' my master urged. 'This poor little thing has never travelled before. In fact, it's the first time she has left home. She'd be frightened to death if she was put somewhere by herself.'

'Exception to rule is non-admissible,' Mr Mukerjee said judicially. 'If exception admissible for darg, then why not for cat? And if for cat,' he continued, reasoning closely, 'then why not for goat? And if for goat—I put it to you, sah, and if for goat, then why not for Brahmini bull? Yes, by Joves,' he concluded, pleased with this flight of fancy and thoroughly warmed to his work, 'why not for Brahmini bulls?'

'Oh, dash it all, Mr Mukerjee!' my master said, 'that's a bit far-fetched. Tip isn't a goat, let alone a bull, she's a little, tiny puppy that would be terrified if left alone. If you object to her being in the compartment, what on earth shall I do with her?'

'Rule is rule and regulation is regulation,' Mr Mukerjee pointed out patiently, 'and, as

your goodself appears non-cognisant with same, I will quote, *inter alia*.' He cleared his throat loudly, spat with unerring aim through the window, and proceeded to promulgate the law. 'First Class compartment is intended for Gorment officials and gentlemens. Second Class compartment for impecunious fellows and gentlemens out of lower draw. Third Class compartment for indegenous rag-tag and bobtails. While for darg,' and here Mr Mukerjee eyed me venomously and stabbed a stubby forefinger in my direction, 'while for darg, is reserved darg-barx.'

'Well, I'm not going to put Tip in the dog-box. She'd die of fright,' said my master firmly.

'Ha! Ultimatums, by Joves!' said Mr Mukerjee truculently, his eyes flashing behind his glasses. 'But, no matter, I am fully conversant in dealing with same. Guard shall be summoned and darg cast forth, *pronto*.' He rose to his feet, belching fretfully and shouted: 'Guard! Guard! Where is guard? Why it is guard always *non est* whenever passenger in *extremis*?' he demanded petulantly.

For some time past whistles had been blowing, gongs sounding, and other manifestations of impending departure of a railway-train in India had been abundantly apparent. Now, however, there was a lull in the proceedings and Mr Mukerjee, opening the carriage-door, stepped out on to the platform and proceeded to bellow for the guard as if his last hour had come. Gagbir had already departed to another compartment further up the train.

Suddenly, as if tired of playing some well-known game, the train began to move, unheralded and unsung. Mr Mukerjee, glancing round, was appalled to discover that his carriage was already some yards away and leaving him behind rapidly. For a moment he gazed at the now fast-moving train, like someone who has had a particularly dirty trick played on him by a trusted friend, then, with a strangled cry of anguish, he girded up his dhoti and began to sprint.

In the days of his youth, Mr Mukerjee, when a student at the university, had been no slouch on the football-field. Since then, time and the fleshpots had intervened. Nevertheless, the form he now displayed in a thirty-yard dash, followed by a magnificent hop, step, and jump, and concluding with a brilliant headlong dive, could not have failed

to impress any Olympic Games selector, had such a one been present.

My master pulled him into the carriage. 'It's lucky I'm kind-hearted,' he said, 'otherwise I'd have let you run till the next station, and that is four hours' steaming away!'

Mr Mukerjee's eyes were starting from his head and great sobs proceeded from his open mouth. His whole appearance was that of a stranded fish, in *extremis*, as he would, no doubt, have described it. He wiped his streaming brow with trembling hand. '*Status quo* maintained till next stop only,' he bleated painfully. 'Then guard is summoned and darg relegated to proper sphere. Yes, by Joves! Same shall be cast into outer darkness!' With a groan he levered himself on to his berth and collapsed moistly and noisily. Silence descended on the compartment whilst the train thundered into the night.

BEFORE getting undressed and occupying his berth, my master tucked me up in a basket and told me to go to sleep. I gave his hand a lick and settled down, but sleep would not come. What a day it had been! I went through all the events in my mind. As soon as I began to think of my mother and my brothers and sisters, a great wave of loneliness came over me. I even began to think quite sentimentally of old Moti. I thought of the family all snuggling up together whilst here I was, all by myself, in a strange place amongst strangers. I began to cry softly to myself. In a moment a hand came down, stroking my head and soothing me, and I realised that I was not alone and that my new and wonderful master was far more precious to me, already, than ever my family had been.

I must have dozed off, because the next thing I can remember was everything being dark and still. Well, not still exactly, because the train was pounding along, and from Mr Mukerjee came a sound as of pigs at dinner-time, but quiet in comparison to all the noise that had been going on before I went to bed. Then I became aware of a funny sinking feeling in my tummy, which seemed to be aggravated by a pungent smell which was being wafted past my basket by the whirling fans overhead. I sat up and sniffed. Not a bad smell! I sniffed again. A jolly good smell! And I was hungry. That was it. I was ravenously hungry.

I staggered to my feet. There was only one

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thing to do and that was to trace the origin of the smell and find out what went on. I did not have far to go. After a cursory sniff at Mr Mukerjee's shoes, I came on it with a bang. It was the remains of the curry now parked below his berth. I gave it the once-over and then began to explore it, tentatively, with my tongue. I had never eaten anything like it before and, truth to tell, I didn't care for the taste very much. However, it was a question of Hobson's choice. I told myself that I couldn't always expect to have milk and chupati, and, anyhow, I was out in the world now, and no longer a puppy. I ate round the edges until I got used to the stuff, and then I let it have it. In five minutes I had cleared the plate and felt as if I was going to burst. I staggered towards my basket, as my one desire now was for sleep. My legs seemed weak under me and I found difficulty in breathing. In fact, I felt very much as I should imagine Mr Mukerjee felt after his sprint. Gurgling slightly, I got to my basket and passed out.

I don't know how long I slept, but I awoke some hours later with the most frightful tummy-ache I had ever experienced. I had been dreaming that Moti had got me down and was gnawing through my tummy, and that is just how it felt now that I was awake. In addition, I felt most frightfully ill. Something had to be done. Painfully I got to my feet and staggered out of my basket. I will draw a veil over what followed!

Five minutes later I began to feel better. I wouldn't put it higher than that, but at least I was beginning to breathe with more comfort. I waddled back to my box and soon fell asleep.

It was daylight when I was awakened by a loud banging on the carriage-door. Someone outside was shouting. In fact, there was the same sort of confused noise going on, only on a lesser scale, that we had experienced at Howrah. Coolies were shouting, doors banging, the itinerant, ubiquitous vendors of food and drink were hawking their wares in strident voices. We had obviously halted at some large station. The banging on the door was repeated and a voice cried: 'Breakfast, sahib! Tea toast, sahib! Sahib wanting tea toast?'

In a moment I was on my feet. 'Master!' I shrieked. 'Master, wake up! Thieves!' My

master awoke, and so did Mr Mukerjee. For a moment the latter appeared bewildered, then, suddenly, recollection began to dawn on him and the fact that he had slept through the night and had failed to have me cast forth at the next station, as promised. Galvanised into life, he threw down the window and began yelling for the guard. In the distance a gong sounded and Mr Mukerjee, apparently fearful that, once again, he might be foiled in his intention, uttered an exclamation of annoyance and leapt from his berth.

That it was his intention to get to the door of the compartment as quickly as possible there can be little doubt, but that he should do so in the way he did he could hardly have guessed. As his bare feet touched the floor of the compartment they landed fair and square in the mess which I had made the night before, causing him to emit a sharp, strangled cry and spring into the air in a sort of *pas seul*. My master eyed this new indication of Mr Mukerjee's talent with obvious astonishment. Mr Mukerjee the embryo Olympic athlete we know, he appeared to be thinking, but Mr Mukerjee the Highland dancer is a new one! Changing feet in mid-air, Mr Mukerjee came to earth again but, this time, in the now empty plate of curry which had been my downfall and which was now standing in a sea of congealed grease and gravy.

For a moment he stood poised like some gigantic statue of Eros, then the plate shot from under him, and he began to travel across the compartment as if discharged from a gun. A strangled cry broke from his lips, his wildly groping hands came into contact with nothing more solid than the basket of mangoes, then his feet shot skywards, and, travelling like a bomb, Mr Mukerjee came to earth with shattering force, right in the middle of the mess on the floor. A second later, like manna from heaven, the basket of mangoes descended on him, burst on impact, and scattered its juicy contents in all directions.

In a moment I had perceived the possibilities of a game played on these lines. Mr Mukerjee had come to earth with his head in close proximity to my basket, and I promptly bit his ear. He screamed just like old Moti, only louder. I let go and, seizing his dhoti, began to pull, yelling at the top of my voice: 'Come on, master! Lend a hand! Now we've got him! Come on! Come on!'

It was no good, however. My master just lay back in his berth and laughed and laughed

until the tears ran down his cheeks. Mr Mukerjee was grunting, groaning, and wheezing on the floor, his horn-rimmed glasses lay broken amongst the mangoes, and his eyes rolled in his head. In fact, his whole manner was that of the Brahmini bull, he had once spoken of, in its death throes. Suddenly, in the midst of all this commotion, the carriage-door was thrown open and an Eurasian ticket-inspector appeared.

THE ticket-inspector eyed Mr Mukerjee, who was now staggering to his feet, with no great favour, and his eye rapidly took in the contents of the compartment, and the mountain of luggage on the upper berths. There appeared to be no doubt in his mind as to its ownership, for he fixed Mr Mukerjee with eagle eye. 'You have ticket for excess baggage?' he inquired. 'No? Then please to come to ticket-office.' Turning to the coolies hovering, hopefully, in the doorway, he ordered them to remove Mr Mukerjee's luggage. 'Take out the Indian gentleman's luggage!' he commanded. 'Another thing,' he went on severely to Mr Mukerjee, 'look at mess in carriage! Why you have to eat mangoes here, there, and everywhere? Other passengers are thereby discommoded.'

He turned to my master. 'I tell you, sir, these Indian chaps always up to pranks. What to do?' Then his eye fell on me. 'Oh, I say, man, what a lovely pup! Fox-terriers are best dogs,' he went on, stooping down to fondle me, approvingly. 'In my home, in Moghal Sarai, I have male and female. Very good shikaris. Only thing, not liking Indian chaps in dhotis. Always trying to debag. Small blame too,' he added as an after-thought, somewhat wistfully.

'Darg—!' began Mr Mukerjee, furiously.

'Never mind for dog,' the Inspector admonished him. 'Baggage is point of issue. Why you are not cognisant with rules? Rule clearly states First Class passenger entitled to one maund, thirty seers, free luggage. Here, you have seven, eight, God knows how many, maunds luggage. You are dull fellow,

or you are trying hanky-panky, God knows! We are now going ticket-office.' He stooped down and gave me a little pat, clicking his tongue deprecatingly as he observed the regrettable incidents of the previous night. 'Little dog has made messes,' he said tolerantly, 'but never mind for that, sir! I will send sweeper and all shall be rectified.'

He began to usher Mr Mukerjee towards the door. The latter, however, was beginning to come to life once again, and appeared in no mood to give up the struggle. He had retrieved his broken glasses and glared through them furiously at the Eurasian. 'You are jumped-up fellow and *persona non grata*,' he told him, truculently, 'and I am telling same to station-master. You shall get fleas in ear! Yes, by Joves! Matter of baggages is *sub judice*, but darg—'

The Inspector, however, had no intention of allowing Mr Mukerjee to assume the offensive and cut him short with a petulant wave of the hand. 'You are telling! You are telling!' he mocked. 'I, also, am telling! I tell you, man, this prank will cost you thirty, forty rupees, no less!'

They descended from the carriage and proceeded through the already scorching heat in the direction of the Inspector's office. Mr Mukerjee was waving his arms; the Inspector was waving his. Their voices began to die away amongst the surrounding hubbub.

'Darg—' Mr Mukerjee was saying.

'Hanky-panky—' retaliated the Inspector.

It appeared to be a case of Greek meeting Greek. My master picked me up and began to fondle me. 'Well, young Tip,' he said, 'I think that's about that. Now we can get some breakfast and rest in peace. Starting as you have, it looks to me as if you are going to have a chequered career.'

The door opened and the figure of Gagbir appeared. He was carrying a saucer of bread and milk and on his melon-like face was an enormous welcoming grin. I yelped a greeting and struggled from my master's arms. 'What a night,' I said to myself, 'and now, what a day! If this is a sample of life, roll on to-morrow!'

Golden Eagles at Eight Feet

TOM WEIR

I WOULD like to tell you about my eagle. 'An awful stupid place to put an eyrie,' said the keeper when he told me about a golden eagle's nest. I had other views when he took me to the crag.

To get to it involved a walk of over three miles, and a climb of some 1600 feet, to the head of a little-used glen where a tumble of black rocks rose for hundreds of feet. The eyrie was in the first tier of cliff, but to reach it from below meant a dangerous climb. We chose to descend to it, by climbing diagonally to a gully which forked down to the eyrie. Under an overhang of the north-facing cliff was one well-grown eaglet, which I forthwith christened Wilkie Bard. And it was well-named, for as I got to know him—I am assuming it is a he, but it might well be a she—Wilkie proved as good a comedian as his namesake.

There were remains of a deer calf in the eyrie on that first visit, and Wilkie looked as if he had just fed. He lay contentedly on his couch of heather and gave us a sideways look with one dark eye. White head-feathers mingling with gold on the ruffled neck gave him an unmistakable juvenile appearance. But the yellow beak hooked to a wicked tip of black was adult. We judged him to be about six weeks old, since he was still showing traces of white down through dark feathers.

I wanted to try photography, but there was no safe place except at the close distance of eight feet from the eyrie, where a notch could be cut in the steep gully. Without very much hope, I decided to put some branches on this spot and see how the parent birds reacted to this sudden growth so near the nest. Within three hours of putting up the branches I had the pleasure of seeing a speck in the sky at about 6000 feet. The dot plummeted earthwards in one terrific fall, flattening out as a gliding shadow on the dark wall of the cliff,

then disappearing under the overhang of the eyrie. With such a fearless bird I could begin photography right away.

TWO days later the keeper and I started work. First of all we had to cut a platform out of the steep mountainside. Stakes were then driven in and hessian wound round them. Branches were draped over and sewn on with a sack-needle. In the three days taken to do this Wilkie had eaten, to our knowledge, two grouse, one hare, and one rabbit. The hide was completed on Sunday at midday, and within half-an-hour the eagle flew straight to the eyrie, taking absolutely no notice of our construction.

With high anticipation I occupied the hide at ten o'clock next morning. Lying in it was like lying sideways in a coffin, for there was no room to sit up or wriggle about. Pins and needles in the fingers and a crick in the neck were minor penalties. Yet the hours passed surprisingly quickly, Wilkie providing the entertainment.

His roving eye missed nothing on the moor below, if one were to judge from the twistings of his head as a sheep bleated, a curlew called, or a meadow-pipit sang. If I made a sound in the hide, his eye swung straight towards me. Catching flies was his chief amusement. He would watch them crawling on the overhanging rock above him, and as they got near he would stand up unsteadily on long feathered legs and try to pick them off the wall. At other times he would try to snap them in the air. Now and then, tiring of the one position, he would lie on his side and thrust out a yellow talon clenched like a fist.

After three and a half hours of diverting watching, I saw Wilkie suddenly stand up and begin to cheep excitedly. Something was going to happen. It did. There was a sound

GOLDEN EAGLES AT EIGHT FEET

like a whistling shell, then a vibrant whum, whum, whum of booming wings. Unbelievably, a cock eagle of wonderful fawn and gold sat in front of me, so close that I knew it would be impossible to take a good photo.

I pressed the shutter. The effect was startling. The bird's head swung round to me and two yellow eyes looked into mine. I couldn't believe that the eagle couldn't see me. For fully a minute we stared at each other. I held my breath and kept my eyelids from blinking. The bird turned its head quickly from side to side, raising and lowering itself in curiously reptilian fashion. Suddenly it was gone, leaving me wondering if I had imagined the whole encounter. But there was the evidence in the eyrie—a half-eaten mountain-hare. During the visit of the parent, Wilkie had stood with bent back cheeping excitedly. He continued to stand long after the parent had gone.

MY next visit, one week later, was quite unrewarding. I had two days to spare, and on the way up to the eyrie I saw the eagle carry in prey, which proved to be a rabbit. I waited four hours in the hide, but the bird did not return in that time, so I gave it up.

Next day at 10 a.m. I again occupied the hide. Half a rabbit lay in the eyrie, and at midday Wilkie disposed of it, displaying some considerable skill in tearing it to bits. This was the first occasion on which I had seen him eat anything. At 3 p.m. the cock eagle flew past the eyrie and began squealing loudly in alarm. Wilkie got so excited that he staggered to the edge of the eyrie and began flapping his great wings. The overbalancing effect gave him such a shock that he only managed to save himself from falling out of the eyrie by a considerable swerve in space. He then cheeped himself hoarse, a loud musical tee-up, tee-up, tee-up, the 'up' part being on the descending scale. Whatever upset the cock eagle we do not know. It may have been a hiker that the keeper could see on one of the near hilltops. I waited until 6 p.m., and sore and stiff after eight hours in the hide I returned home, overdue for some food.

THERE was a marked change in Wilkie when I saw him another week later. The neck was quite golden and only a trace of white was showing on the head. A little

white remained on the upper breast, but the feathers of the general plumage were shining with a new lustre, and Wilkie had taken to preening himself, each feather being whetted on the hook of his beak. Flies and preening were his chief diversions, plus a new habit of standing on one leg with the other thrust out at an angle, the yellow claw clenched to a wrinkled ball. He was now strong on his legs and had acquired the knack of scratching his head with his claw.

My luck was in. I had only three hours to wait, when in came the cock, not from above this time, but flying across the glen on great, slow wingbeats. The sun was on its tawny plumage and a rabbit red with blood hung from its talons. With primaries thrown upwards like a harrier, it lowered the rabbit to the eyrie, the bow of its wings acting as a parachute. The landing was like thistle-down.

I pressed the shutter as the bird stood on the prey, but it took no notice, nor did it show any suspicion. It shuffled across the nest to where there was an old bit of bone and fur, picked it up in its beak, and flew off with it. Eyries usually stink with decomposing flesh, and the remarkable sweetness of this mid-summer eyrie had been a surprise. This clearing away of the spoil was the explanation. As before, Wilkie had stood and yelped continually during the whole time the eagle was at the eyrie. The rabbit delivered to the eyrie was the first completely unskinned one offered to the youngster.

With the help of the keeper, I had established certain things by now. First, that the cock eagle was doing the feeding, but that the female was doing the hunting, the change-over taking place on top of a crag half-a-mile away. Second, that the youngster was fed at least twice a day, usually between midday and 2 o'clock and, from evidence at the eyrie, again in the evening. I judged the young bird to eat no more than two rabbits or the like a day. New green branches had been added to the floor of the eyrie since my earlier visits.

IN view of the meal arrangements, it was a shock to my calculations to find next morning that a fully-grown rabbit, newly delivered by the look of it, lay in the eyrie beside the remains of yesterday's. It appeared as if I was in for a very long wait.

Both Wilkie and myself were apathetic this

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morning, the result of sultry air and fierce heat. At midday Wilkie disposed of yesterday's rabbit-remains, but did not touch the new rabbit. An hour later he grew very excited, and I glimpsed the cock eagle flying past. Suddenly it heeled round and came straight to the eyrie. I tried a flight photo in colour as it lowered its legs to the nest-ledge, but the bird sheered off at the sound of the shutter. I had a premonition that it would return, and, sure enough, in ten minutes it came in carrying a small plucked bird in one talon. As it landed, it took fright, scuttling out of the eyrie with the small bird still clutched in its talon.

'What was it seeing?' I wondered. At the risk of not getting a photo, I moved the camera lens inside the hide and waited. In another ten minutes the eagle came flying in again with the plucked bird. Without hesitation it parachuted down, shuffled over to the youngster, looked at it a moment, left the plucked bird, then picked up the remains of the dismembered rabbit in its beak and flew off with them. At that moment I glimpsed the female eagle circling closely, the only occasion when I had seen both birds at the eyrie together. Through the telescope my keeper friend half-a-mile away was able to watch the cock eagle eating the rabbit remains taken from the eyrie.

That day was to be an eagle circus. Within half-an-hour both eagles were back at the eyrie, but only the cock landed. Its movements were peculiar. First it tore a piece from the plucked bird and held it to the cheeping youngster. It wasn't accepted. Swallowing

the rejected morsel, the cock then shuffled all over the eyrie looking for something, and, not finding anything, it flew away. During this time the female kept watch from the crag a few feet away.

No colour photographs had been possible during this time because of bad light, and I was in the act of changing cameras when in came the cock for the last time. Again it attempted to feed the youngster without success, and again it searched the eyrie. It flew away without any signs of suspicion or alarm. This had certainly been a day of days, worth all the disappointments of the past. When another hour had passed without any reappearance I judged the show to be over and climbed stiffly up the gully.

NEXT day, in high hopes of a good series in monochrome, I occupied the hide once more. But shepherds were gathering sheep in the glen below and all I saw of the eagle was an inspection flight, during which it skimmed low over the heather like a harrier, its head twisting to the eyrie as it passed. At 3.30 p.m. there was no food in the eyrie and every hope of an early visit, for the voices of dogs and shepherds had quietened. But I could wait no longer. I was already overdue for the road south and reluctantly crawled from my hide. I left with a feeling of frustration in my photography, but that is a minor disappointment. What remains for ever is the mental picture of these great birds soaring over the Highland glens, and landing within eight feet of my watching eyes.

The Heart's Pilgrimage

*Tell them that I am coming,
Tell the dark water under the hill that I shall be there,
Tell the sweetbriar at the gate and the white Prince Charlie rose-tree,
Tell them I never shall come, but shall always be coming;
I am coming as long as a heart can care,
For when the body goes most wearily,
Harshly muttering: 'This cannot be, and you cannot go,'
Then flies the spirit lightly, though the imprisoning house looks drearily,
Flies always northward and higher, and northward and swifter,
To a point where at midsummer the ben still holds its pocket of snow.
Tell them that I am coming,
Such as remember, such as forget, all whom I used to greet.
It is the strangest journey. The fastest pilot climbing the heavens
Cannot match his wits against it, nor understand, nor compete.*

DORIS DALGLISH.

Deasil and the Golden Section

Nature's Right-Handed Bias

ERIC CROSS

ONE afternoon, several years ago, I lay stretched on a beach, with nothing to do. Idly I gathered together some of the many shells that lay within the lazy reach of my hand. Casually I examined them, noting their variety and shape and colour. In a doodling mood I arranged them in vague patterns. Then, suddenly, I noticed something rather odd about them. When the whorled shells—that is, those similar in form to snail-shells, were arranged with their points uppermost, all the openings of them were to the right-hand of the shell and the whorl or spiral, starting from the centre, turned invariably to the right or clockwise.

It seemed strange that nature should pay any regard to or make any distinction between a right-handed and a left-handed movement. Perhaps, I thought, it just happens by chance that all the shells that I have so arranged belong to the same species, or maybe they are all of the same sex, hence this curious regularity. But during the following days, my curiosity whetted, I picked up many shells of different species and could find none in which the direction of the whorl was other than to the right.

The matter became a small mania with me and I spent many hours seeking for just one exception to what was beginning to look more and more like a rule of nature, seeking for a shell which spiralled to the left. But I never found one, nor have I to this day. I have examined sea shells and land shells. I have examined collections of shells in museums, but all obey the same rule. The textbooks on conchology mention one or two exceptions to this rule, but they are so rare that they can be called abnormalities. It looks as though nature has a bias towards the right. But a strange sidelight upon this is

that shells with a left-handed turn occur much more frequently as fossils, as though time has changed direction.

My interest, or my mania, spread then from shells to other forms in nature, seeking an answer to the question that the shells had raised in my mind: Is this right-handed twist a character of shells alone, or does it obtain also elsewhere in nature?

Very quickly I found that the peculiarity applies to much other than shells. As a general rule the majority of climbing plants, such as ivy, convolvulus, honeysuckle, peas, and climbing beans twist to the right. Here, however, there are several definite exceptions. The hopbine, for example, turns in the opposite direction, but, in the main, the twist is right-handed.

Not alone the stem of a climbing plant has this character, but the parts of the plant share in it. Thorns twist in the one direction, and almost always the right, up the twig. The twigs themselves twist this way up the branches, and the branches, too, up the trunk of the tree.

I experimented with quickly-growing beans, trying to force them to grow in the direction opposite to that of their natural bias, but invariably the plants fought their way back to their natural pattern. I grew them in boxes, changing the orientation of the boxes each day, but the growing plant defeated this.

ALL this was odd and strange and curious. Why should it be? What was the cause of it? I have found no answer to these questions and continue to ask, like Bacon: 'Doth any man give the reason why some things in nature are so common and in so

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great mass and others so rare in so small quantity?'

Now it is obvious enough that nature is not concerned with the conventional human relative directions of right and left hand. This spiralling is relative to the sun's apparent motion or to the actual motion of the earth. It is generally clockwise, or sunwise, but it does not appear to be a following of the sun, a direct influence of the sun's seeming daily journey. Grown in the dark, plants still obey their natural way, and it is obvious that the earth's rotation can scarcely have much bearing upon the slow dark growth of sea-shells.

This sunwise turning applies to so many natural motions that it appears to be a basic pattern of nature. Watch a dog as it twists or makes a form before lying down. Always it curls in a sunwise direction. A spider builds its web in the same way. Examine your own personal habits, superstitions, and inclinations, and it is most probable that you will find many aspects of this sunwise turning entering, if not consciously, at least unconsciously, into your daily life.

Do you find, when the choice is free, turning to the right or left more easy and natural? In which direction do you stir a cup of tea or beat an egg? On a circular walk do you prefer to make your route sunwise or anti-sunwise? Consider that all horizontally rotating machinery, such as a gramophone turntable, a milk-separator, rotates sunwise; that the spiral of a screw and a drill are sunwise.

Ask fishermen and farmers about this matter and you will find that, without any reason apparently beyond custom and usage, they do certain operations always in the direction of the sun. You will find a preference for ploughing and reaping operations to be done this way. The older generation of fishermen, when leaving a quayside or another boat, unfailingly take a sunwise turn, even though it may be the more difficult direction.

This bias of direction applies also to a number of purely physical motions, such as eddies and whirlpools. Watch the whirlpool made when you let the bath-water out the next time and notice in which direction it spirals.

For a moment you might wonder what happens about all this in the Antipodes. What happens to shell formations on the Equator line? A moment's reflection, how-

ever, will show you that there can be no change. The same law applies in both hemispheres, or, if it did not, there would be a much greater mystery added to what is already mysterious enough.

THOUGH this natural fact has more or less passed out of modern man's consciousness, it was once upon a time a part of his conscious knowledge. An indication of this comes to us by way of two almost obsolete words, carried down by the language, as relics of the long-vanished belief in magic. The words are 'deasil' and 'wither-shins,' or 'widdershins,' and they mean sunwise and countersunwise turning. They were terms applied to the circles struck out in the performance of magic rites. Deasil, or sunwise, was the direction in which the circles were made in white magic, and withershins, or antisunwise, was the direction used in black magic. Deasil was in accord with and co-operative with nature, whereas withershins was opposed to nature.

In chemistry, to take another aspect of all this, the fact has long been known, and is much used in chemical analysis, that certain chemicals, such as tartaric acid and some of the sugars, occur in two forms. Though the two forms are identical in their chemical constitution, they differ in their effects on a beam of polarised light. One form turns the light to the right, while the other turns it to the left. The property is known as optical activity and the relative terms are dextrorotatory and levorotatory.

The dextrorotatory form of tartaric acid, for instance, is produced in the making of wine, but never the levorotatory. The human body contains the dextrorotatory form of the sugar, glucose, but not the levorotatory form. Someone has discovered the queer fact, in some equally queer way, that if the levorotatory form of a substance, phenyl-alanine, is taken in food, a serious metabolic disorder is produced, which ends in the form of madness known as amentia. If, on the other hand, the dextrorotatory form of this substance is taken there are no ill-effects at all. It even looks as though human metabolism has a directional bias.

Another curious sidelight upon this property of optical activity is that though many of these chemicals or substances possessing optical activity can be produced synthetically as well

DEASIL AND THE GOLDEN SECTION

as obtained from natural sources, the synthetically prepared substances always differ in the direction of their optical activity from similar substances obtained from nature.

ALL these instances of nature's apparent preference for a particular direction of movement are strange enough, but they are only a part of the strangeness on which I stumbled in a few moments' idleness.

Returning to the shells which prompted my original curiosity. I cut some examples of these whorled shells across horizontally with a fine hacksaw and I was immediately impressed by the regularity of the whorl form when seen in one plane.

From lap to lap the whorl increased in breadth, but the shape of each section remained unchanged throughout. The growth of the shell was gnomonic—increasing in size while always remaining constant in shape. Again, the breadths of the successive whorls quite obviously were in a continued proportion. The whorls had the form of a cone wrapped around itself.

These three qualities, apart from the obvious appearance of the spiral itself, indicated that the spiral was what is known as an equiangular, proportional, or logarithmic spiral.

This particular spiral form has attracted the attention of scientists, mathematicians, and others over many centuries. Da Vinci, Descartes, Christopher Wren, Newton, all investigated its character. The famous mathematician Jacques Bernouilli was so impressed with it that he called it the '*spira mirabilis*,' and had it engraved on his tombstone. The progression on which it is based is that of the series of numbers known as the Fibonacci series. It is the series 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144, etc. Each term of the series, after the first two, is the sum of the preceding two terms—3 and 5 are 8, 5 and 8 are 13, etc.

With a renewed curiosity I retraced some of the paths which I had followed in relation to the sunwise-turning phenomenon. Oddness was added to that which was already odd, for I found that in far too many examples for them to be merely the result of chance this mathematical series was common in nature.

The 3, 5, 8 series applied to numerous examples of petal and floret arrangement. It applied to the spacing of the lines of spiders' webs, to the ripple rings created by a pebble thrown into a still pool. It was apparent in the weblike fractures made by the impact of a stone on a sheet of safety-glass. Nature, as well as having a leaning towards the right, has also a mathematical bent.

Then one day I remembered Euclid, Book II, Proposition 11, which deals with the division of a line in such proportion that the first part shall be to the second part as the second part is to the sum of the parts. This is the geometrical form of the arithmetical Fibonacci series. The ratio of a line so divided is always as 1 is to 1.618.

From this proposition of Euclid's is derived the golden section, the 'divine proportion' of the Greeks, to which they devoted so much thought and which they applied practically with so much effect in their sculpture, their architecture, and, in the works of Pythagoras, even in their philosophy. And this 'divine proportion' is, in some respect or other, a factor in all spiralling growths of nature.

So, a moment's idleness on a summer's day, years ago, yielded a huge harvest of wonder and interest. It revealed a simplicity of order behind the apparent complexities of nature and linked natural beauty with mathematics. It showed how the Great Artist, consciously or unconsciously, follows in the production of his greatest works a mathematical formula which is a law of nature. It showed the common ground upon which the mathematician, the scientist, and the artist meet, though they may speak in different tongues.

Veteran

*Though Moon and Cupid in their guile
Shall set about my capture,
I'll disregard each lying smile
And whispered hint of rapture;*

*For I have been their way before
And come home on the morrow
A loser in love's pretty war
And ribboned with my sorrow.*

CHARLES KELLIE.



The Governor's Greyhound

ALFRED BURKE

EARLY one hot summer's morning in the year of Our Lord 1796 the Reverend Richard Johnson, B.A., first chaplain to the new colony at Sydney Cove, walked up the dusty hill from the Tank Stream towards his church. The church was only a wattle-and-daub affair, but the chaplain was proud of it. By his own efforts and money, and with but scant assistance from the authorities, the vigorous parson had erected this, the first, and only, place of public worship in the new settlement.

Halfway up the hill he saw a gang of convicts at work. He stopped, his strong, well-marked features clouding with displeasure. For a moment he was about to cross over the rough intervening ground to expostulate with the overseer about this desecration of the Sabbath. Then he reminded himself of the futility of such a protest—for how often in the past few months had he complained in vain to the Lieutenant-Governor, Major Grose, about this increasing disregard of the Lord's day.

Resuming his steps, he heard the drums and bugles of drilling soldiers mingle with the tolling of a bell. This bell, erected on a post near the church, was also used to summon labour gangs to work, and gave its name to the rough track by which it stood—Bell Row. And on Bell Row, not far away from the

church, stood the newly-opened playhouse, Sidaway's 'Sydney Theatre.'

The chaplain turned to enter the vestry. His eyes flashed at the sight of a crowd of idlers, soldiers, and emancipists who lounged in the shade of a few near-by trees and in the shadow of the theatre. While the working of labour gangs and the military exercises of the soldiers on Sundays stirred the churchman to righteous indignation, the noisy playhouse was his greatest bugbear. Ever since that astute baker, Sidaway, had built this playhouse, the chaplain's congregation and influence over the colonists had melted away.

The manager of the theatre, Mr John Sparrow, who had been inspecting a playbill on the front of the building, turned to his principal actor, Mr Green, and said quietly: 'There goes Dick Johnson, our chief opponent.'

Mr Green, a foppish little man in a long bottle-green coat and a high-buttoned fancy waistcoat, garments more suitable to his native Bristol than to Sydney Cove on a summer's day, glanced around to see the chaplain disappear into the church. In a high-pitched voice he exclaimed: 'They do say the parson's quite a feller. Knows more about blooming apples and oranges than about Old Nick.'

'He's a many-sided gentleman, all right,'

THE GOVERNOR'S GREYHOUND

returned Sparrow. 'He has made a dead-set against us, and if it wasn't for the ill-feeling between him and Major Grose our doors would have been closed in the first week.'

Mr Green gave an excellent imitation of a convulsive shudder and followed the portly form of the manager into the cool theatre.

WHILE the Reverend Johnson held a service for the five or six people who on this Sunday morning comprised his congregation, Mr Sparrow was wondering how he could increase the seating-capacity of the playhouse. A performance of *The Recruiting Officer* was to be staged in half-an-hour's time and already the flimsy theatre was nearly full. The ticket-office just inside the doors was piled with a wide assortment of goods paid in for admission. No money changed hands, for the very good reason that none was in circulation, but rum, flour, meat, nails, tobacco, vegetables, or anything else capable of use was accepted at the appraised value of one shilling—the price of admission. Soldier patrons of the playhouse usually brought a quart of rum or a few ounces of tobacco, while the free settlers and emancipists brought the products they had cultivated—or anything else upon which they could lay their hands.

Mr Sparrow's thoughts on seating-accommodation were interrupted by the young actor who was doubling as ticket-seller. 'There's a man with a kangaroo carcass, sir. He wants five tickets for it. Quite a big one, sir. But with this hot weather it won't do to take too much fresh meat, sir.'

'Let him in,' said the manager, 'but don't take any more meat to-day.'

The performance in the theatre began before the chaplain had finished his sermon and the merriment of the audience was heard clearly in the church. The service over, Mr Johnson removed his surplice, put on his hat and coat, closed the vestry door securely behind him, and walked along Bell Row past the playhouse. The voices of the players came distinctly through the thin walls as the chaplain strode resolutely towards Government House. He was well aware of the lack of formality about this visit, but he was resolved to face the Lieutenant-Governor this very morning.

GOVERNMENT HOUSE on Bridge Street was an unpretentious building. In the

shade of the verandah a private soldier in full regimental dress paced up and down. The sentry halted as Johnson approached.

'I wish to speak with Major Grose on urgent business.'

The sentry made no reply, but went through a doorway and soon returned followed by his sergeant, who, by his dishevelled appearance, had evidently been taking a morning nap. The sergeant, recognising the caller, saluted, went inside, and, after a short absence, returned. 'Beg pardon, sir,' he said, 'but the Governor asks that you be so kind as to state your business, sir.'

'Please inform him that I wish to see him urgently,' snapped the chaplain.

The sergeant hesitated. He looked at the caller, whose red face was streaked with perspiration, mumbled a few indistinct words, and retreated inside once again.

This time he was gone for ten minutes while the Reverend Johnson stood in the burning Australian sun. The sergeant's face was flushed with embarrassment when he returned. 'The Major will see you, sir. Follow me.'

Preceded by the sergeant, Johnson walked into Government House. At the end of a passage his escort knocked on a door, turned the knob, and announced the visitor.

It was dark and cool in the big room where the chaplain found himself. Dimly he made out the form of the Lieutenant-Governor seated negligently in a big chair, a fawn greyhound at his feet. A little to the right stood another man in military uniform. This was Adjutant Collins.

'Ah, there you are, Mr Johnson,' said Major Grose wearily. 'And pray, sir, why are we indebted to your call this morning?'

From past experience with officers of the New South Wales Corps the chaplain did not expect much courtesy, but he twitched indignant that he should be addressed without the common civility of being offered a chair. 'Sir,' said Johnson, 'I have on several occasions written to you in protest about labour gangs and military exercises on the Sabbath—and to no avail.'

The military Governor of the colony, continuing to caress the head of the greyhound, said slowly: 'I have received your letters, sir.'

'I would remind you, Major Grose, that nothing of what I have spoken would have been permitted in Captain Phillip's time.'

This reference to the former Governor brought a frown to the Major's face.

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'Now, sir, this playhouse which you have been pleased to tolerate is another and more serious matter. It is a menace to the morals of the community, for, as you well know, there are persons in this colony who would go to any length to obtain the price of admission to the playhouse.'

The Lieutenant-Governor unwound his long legs and rose from his chair. There had been numerous complaints and fears carried to him in reference to this theatre. If it was proved that the playhouse was the cause of these many recent small thefts, then he would be forced to take action. But he'd be damned if he'd do anything on account of this meddling parson. He looked across to his adjutant, who had not yet spoken. 'We have no evidence that the playhouse is the cause of anything,' he snapped. 'What say you, Mr Collins?'

Adjutant Collins, a slim dark man of some literary ability and a patron of the new theatre, spoke: 'No, sir, there is no official information that the theatre in any way contributes to the delinquency of the colony. Indeed, sir, its owner, Robert Sidaway, is a man of great respectability.'

The Governor looked at the chaplain and smiled thinly. 'You see, Mr Johnson, the mere fact that the—er—theatre has proved to be more popular than—er—shall we say, the Scriptures, does not entitle us, officially or otherwise, to take hostile—'

'Yes, yes,' interposed Johnson, 'it is not a question of preference. The matter goes deeper than that, and I hope to prove to you that the continued existence of this obnoxious playhouse does contribute to the moral decay of this colony.'

Again the Governor smiled across to his adjutant. 'Well, of course, Mr Johnson, if you can supply proof of that, then we may take some action.'

Suddenly the chaplain felt the energy and indignation drain out of him. He had been a fool to make this visit. These rough soldiers, separated by only a hair's width from the men and women they were set to watch, cared little for anything but their material fortune and comfort. They had no roots, no interest in this far-off colony; in a few short years they would go back whence they came, reckoning their sojourn here as so many wasted years. The way the Governor had spoken showed clearly he had no intention of enforcing the sanctity of the Sabbath or dealing with the

playhouse. The playhouse—the Governo would take some action if he had proof—proof . . .

The Governor's face came into focus again as the chaplain collected his thoughts and straightened his shoulders. 'Major Grose, when I can offer you proof that the playhouse accepts, wittingly or unwittingly, stolen goods as admission charges, then I shall call on you again. Good-day, sir.'

The two military men exchanged tight-lipped smiles as the visitor departed and the Major's mind switched to other matters of more import. 'When did Betsy come back?' he asked.

'Don't know, sir,' said Collins. 'The servant could tell. Shall I ring for him?'

'Yes, do. And, by God, if he allows this dog to get loose again while I'm away I'll send him to the road-gang!'

'She may have been stolen, sir,' ventured the adjutant. 'There is a strong demand for any kind of dog, as you know.'

'Not much chance of that,' laughed the Governor, fondling the fawn head of the greyhound bitch. 'I'd know Betsy anywhere. In fact, I don't think there is another of her breed in the colony.'

THE long hot summer, with its pests and water shortages, was brought to a close by autumn's cold winds and rain, but the warmth of the colonists for their theatre on Bell Row remained undiminished. And undiminished, too, was the Reverend Johnson's hostility towards the playhouse. He addressed himself no more to the Lieutenant-Governor, but every ship that sailed for England carried voluminous letters from the chaplain to his superiors, letters which told of his unflagging efforts to keep sacred the Sabbath in this rough colonial outpost.

To-day he sat in the vestry of his small church arranging services and sermons for the weeks ahead. As he worked, he heard laughter and shouts coming from the playhouse, where performances appeared to be staged at all hours of the day and night. Suddenly the noises became louder. Oaths and curses wounded the air. Throwing down his quill, Johnson opened the door and looked across the way. Soldiers, sailors, and emancipists crowded about the front of the playhouse. He saw a slim figure break free from restraining arms and dash towards the church. With

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loud cries the mob gave chase. The chaplain watched calmly as the fugitive, wide-eyed and gasping with fear, raced straight for where he stood. 'Save me, mister. Save me,' implored the hunted one, hurling himself against the churchman.

Standing in front of the cowering fugitive, Johnson raised a hand. 'Stand back,' he bellowed, 'there will be no violence here. Stand back.'

While most of the others obeyed this order, one huge freckled corporal stood his ground. 'We don't want to be bothering ye, Mister Parson, but this here brat tried to git into the playhouse with this here.' The corporal reached a hairy paw to the ground, plucked up the bloodstained parcel dropped by the youth and placed it in the chaplain's hands. 'This, Mister Parson, was tendered at the playhouse as kangaroo meat! *Kangaroo meat*, if ye please!'

Affirmative angry shouts echoed the corporal's indignant statement.

Johnson was nonplussed for a moment as he stood holding the grimy parcel. Before he could fully grasp the situation, the snivelling

youth he was protecting from the mob bolted like a hare. Instantly the mob took up the chase anew, and in three or four seconds the chaplain stood alone, holding some bloody object wrapped in a piece of dirty sacking. With a shrug he went into the vestry, threw the parcel on the earthen floor and with his foot removed the sacking. Now that the object was uncovered, he thought of what the corporal had said about kangaroo meat. But no one had ever seen a kangaroo with a fawn hide such as this . . .

For a while the parson stood motionless, his eyes fixed steadily on the shapeless mass at his feet. Though the head and legs were missing, it took only a few seconds for him to ascertain not only the true nature of the carcass, but also the person to whom, in life, it had belonged. With an impatient gesture he turned to his desk, where lay an uncompleted sermon. He could finish this sermon in half-an-hour. Then would he be ready for other business. And a grim smile creased the stern features of the Reverend Richard Johnson as he thought of the call he would be making on a certain military gentleman not a hundred miles away.

Customs and Superstitions in Little Tibet

WALTER ASBOE

PRIMITIVE customs and superstitions may seem to us peculiar, senseless, or outmoded, but a moment's thought concerning our own customs and superstitions, say, only a hundred years ago, may make us less ready to ridicule, or to be amused at, the customs and beliefs of Tibetans in their mountain fastnesses in the high Himalayas. For instance, we take our hats off and keep our shoes on when we enter a house. The Tibetan keeps his hat on and sheds his shoes. We shake hands

when we greet a friend; the Tibetan sticks out his tongue by way of salutation. We live on the chair and table level, whilst the Tibetan eats, sleeps, and works on the floor with his legs crossed under him. We manipulate our food with knives, forks, and spoons, but he uses his fingers. We spread our butter on bread, whilst the Tibetan mixes it with his flour, or puts a generous lump of it in his tea. In Tibet you show your importance by coming late to tea or dinner; indeed, you increase

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your importance by being called two or three times by messengers from your host.

THE blacksmith in this topsy-turvy country contents himself with a hole in the ground for a forge, a pair of goatskin bellows, a flat stone for an anvil, and a few primitive implements, with which he produces surprisingly good results. He is usually the local dentist, who cauterises an aching tooth with a red-hot needle, or tries to extract it with his pliers.

Daily weather-forecasts are unknown, so the peasant makes his own forecasts, based on his observations of weather conditions in high altitudes. When there is an unusually dry season, the services of a rain-compeller are invoked. The gentleman I knew was an aged lama, a short-sighted, white-haired albino. I used to watch him at his work of rain-compelling. He would drop some herbs and flowers into a spring, and utter an incantation. His idea was to please the spirits which he believed lived in springs, lakes, and pools. This done, he would open an umbrella and solemnly walk round some fields—a form, I suppose, of auto-suggestion. His tactics were not always rewarded in the way that was expected, so he would make some plausible excuse, and no one thought any the less of him for that.

Another much respected character I encountered was not quite so harmless or pleasant a person. He was the village sorcerer. His job was to drive out evil spirits from human beings and animals who fell ill. He would work himself into a terrific passion, waving a sword about, and often actually striking the sick man, in the belief that the evil spirit causing the disease would come out of the patient.

A less radical cure of a sick person I knew is perhaps worth mentioning. The patient was very ill indeed, so down came a party of lamas from the near-by monastery. They intoned their scriptures—each reading from a different volume at the same time—they rang bells, clanged cymbals, and beat drums, and generally made a terrific noise. What interested me most, however, was what went on behind the scenes. A lama was busy dressing up a doll or effigy of the patient. He hung the patient's turquoise necklace round the neck of the doll, and placed a cap on its head. The idea, of course, was to deceive the evil spirit into mistaking the effigy for the

patient. The sick man, however, was too ill to take any food, yet the lamas kept on pouring broth into his mouth, nearly choking him. Nor would they allow him to sleep, for they argued that during sleep the soul is likely to leave the body, and what would happen supposing that the patient woke up before the soul returned to its human tenement?

In certain remote valleys in Little Tibet the eclipse of the moon causes considerable consternation. The village gets into an uproar with people shouting, beating drums and tin cans, and firing primitive matchlocks—all to cause the dragon believed to be swallowing the moon to disgorge it.

TIBETANS are great believers in lucky and unlucky days. So, if a man wants to go on a trading expedition, or to build a house, or to cut a new watercourse, he consults the oracle. The lama then refers to his books, telling the inquirer which day is lucky for the new venture. It may happen that the lucky day may not suit the convenience of the traveller. But he finds a way out of his difficulty. He carries his load for several hundred yards on the lucky day, and, placing a stone on the load by way of a seal, he leaves it by the roadside until it suits him to pick it up and proceed on his journey. Incidentally, Little Tibet is the only country I know where you can leave your baggage for a few days, and hope to retrieve it. Nor do I think that merely placing a stone on the top of our vehicles would serve as a deterrent to a motor-car or bicycle thief. If it is a house the man wants to build, he will dig a few spadefuls of earth from the foundation, resuming his work of building when he feels like it.

I know few Tibetans who really enjoy being photographed. Tibetan women especially run away at the sight of a camera. One day I overheard two girls commenting upon the efforts of a European photographer who tried to make them pose for a picture. Said one of them to her companion: 'Look at him—he tried to get me into his power with that box, but I would not let him do it.'

There are many devices for keeping away evil spirits. Bells, suspended from string tied to trees or the walls of houses, tinkle in the breeze; prayer-flags with mystic inscriptions flap about when the wind blows; the lintels and walls of houses are splashed with red

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paint—all to frighten away evil spirits which would harm the community. The happy little faces of Tibetan children are disfigured by a splodge of soot just above the bridge of their noses, and even the cattle have charms attached to their horns or tied to their tails.

Most Tibetans think that every European is a doctor, so they invade the privacy of your tent by peering through the doorway, or peeping under the tent-flap. It does not matter whether you know much about doctoring, but the one essential for a doctor in their eyes is to feel the patient's pulse, and give some advice about dieting. On one occasion I happened to write on a scrap of paper something quite unconnected with the patient. On turning to put the paper in my wallet I could not find it. On asking the sick man if he had seen the paper, he replied: 'Sir, I thought you had written a prescription for my disease, so I ate it.'

community hanging together through thick and thin. It fares ill with the man who gets unpopular or is a ne'er-do-well. He is at once boycotted and excluded from all social functions. If he wants to borrow a plough and a yoke of oxen, he discovers that all these amenities are unavailable. If he wants to light his fire for an early morning cup of tea, he finds that the embers of his neighbour's fire, which he proposes to carry in an iron ladle to kindle his own, have mysteriously gone dead cold. In short, his life becomes intolerable. But he can restore confidence by treating the villagers to a beer-party, and all is well again.

There is a snag in this form of 'trade-unionism' in that it militates against the spirit of free enterprise, and stultifies personal initiative. Tibetans on the whole condone lapses from moral rectitude, but they are not so lenient to the man who breaks village custom. They believe in the wisdom of their ancestors, because their impression of them is derived not from history but from poetry and legend.

THE communal spirit among the hill tribes of the Himalayas is strong, the whole

Graceful Exit

*Better a paddock with a poplar to point the dawns
And a white rose to haunt the gate at night
Than this loved legacy of silent lawns
And weed-grown walks, too large for lonely labour;
Whose borders haunt the heart with vanished flowers;
And walls of once-trimmed yews
Grow blurred as memory of what the place once was,
Garden and fairy tale. But now—
Fairies must work the garden. And the plough
Would soon smooth out its ancient plot
And make all plain.
For times, they say, must change, and we
Should mould our mood to fate.
The sheep-shorn lawn, then, let it be,
With a rose beside the gate
For Beauty's sake, and one aspiring tree,
And break our chains of indecision's strain
Without too much regret
For Faith deceived and labour wrought in vain
(Good gardeners always plan beyond their span),
While Hope and Inspiration need no tears;
Strayed from another age, that youthful twain,
Down the green pathway of the years
Like lovers lost themselves in labyrinthian shrubbery
And know no passing pain at Beauty's death.*

EGAN MACKINLAY.

Twice-Told Tales

XLIV.—*Slave Auction*

[From *Chambers's Journal* of August 1854]

WIDE-AWAKE and I being alike tired of waiting, we went off in quest of sales further up the street. Passing the second office, in which also nobody was to be seen, we were more fortunate at the third. Here, according to the announcement on the paper stuck to the flag, there were to be sold, 'A woman and three children; a young woman, three men, a middle-aged woman, and a little boy.' Already a crowd had met, composed, I should think, of persons mostly from the cotton-plantations of the south. A few were seated near a fire on the right-hand side, and others stood round an iron stove in the middle of the apartment. The whole place had a dilapidated appearance.

On my arrival the lots for sale had not made their appearance. In about five minutes afterwards they were ushered in, one after the other, under the charge of a mulatto. I saw no whips, chains, or any other engine of force. Nor did such appear to be required. All the lots took their seats on two long forms near the stove; none showed any sign of resistance; nor did any one utter a word. Their manner was that of perfect humility and resignation.

As soon as all were seated, there was a general examination of their respective merits, by feeling their arms, looking into their mouths, and investigating the quality of their hands and fingers. Yet there was no abrupt rudeness in making these examinations—no coarse or domineering language was employed. The woman, with three children, excited my peculiar attention. She was neatly attired, with a coloured handkerchief bound round her head, and wore a white apron over her gown. Her children were all girls, one of them a baby at the breast, three months old, and the others two and three years of age respectively, rigged out with clean white pinafores. There was not a tear or an emotion visible in the whole party. Everything seemed to be

considered as a matter of course; and the change of owners was possibly looked forward to with as much indifference as ordinary hired servants anticipate a removal from one employer to another.

'Sale is going to commence—this way, gentlemen,' cried a man at the door to a number of loungers outside; and all having assembled, the mulatto assistant led the woman and her children to the block, which he helped her to mount. There she stood with her infant at the breast, and one of her girls at each side. The auctioneer, a handsome, gentlemanly personage, took his place, with one foot on an old deal-chair with a broken back, and the other raised on the somewhat more elevated block. It was a striking scene.

'Well, gentlemen,' began the salesman, 'here is a capital woman and her three children, all in good health—what do you say for them? Give me an offer. (Nobody speaks.) I put up the whole lot at 850 dollars—850 dollars—850 dollars (speaking very fast)—850 dollars. Will no one advance upon that? A very extraordinary bargain, gentlemen. A fine healthy baby. Hold it up. (Mulatto goes up the first step of the block; takes the baby from the woman's breast, and holds it aloft with one hand, so as to shew that it was a veritable sucking-baby.) That will do. A woman, still young, and three children, all for 850 dollars. An advance, if you please, gentlemen. (A voice bids 860.) Thank you, sir—860; anyone bids more? (A second voice says, 870; and so on the bidding goes as far as 890 dollars, when it stops.) That won't do, gentlemen. I cannot take such a low price. (After a pause, addressing the mulatto): She may go down.' Down from the block the woman and her children were therefore conducted by the assistant, and, as if nothing had occurred, they calmly resumed their seats by the stove.



Robe de Dimanche

M. R. MICHAEL

MADELAINE sat on the edge of an old stone trough in the yard. It was a sunny afternoon and growing late, but the light shone down so that she could feel its warmth on her bare hand as the glow from a dying fire.

With the nail of her index-finger she picked at the black cloth of her dress where the skirt was stretched across the sharp angle of her knee, gazing thoughtfully at the worn material as she noted the tinge of age, a breath of mildew clouding the thin thread. She wondered whether she should have bought a new one, for she guessed what the neighbours had said that morning. Only the fact that this dress had been a present from Jean, and the stuff specially chosen by him, had made her feel it would be disloyal to replace it now.

Jean had always told her that she looked good when she wore her best clothes to church on Sundays—the starched lace cap, fine black apron of silk banded by velvet, and the heavy silver chain and locket that had belonged to his mother. Now, sitting out there in the pale sunshine, she wondered if she might make the old dress last, knowing how wasteful it would be to spend money on a new one at her age, with so few occasions left on which she'd have need to wear it. 'Yes,' she decided, 'this is still my best dress—my *robe de dimanche*, and

so it shall remain until the day when, in accordance with my given instruction, I shall be buried in it.'

MADELAINE remembered so well that bright spring morning years ago when she'd driven in to market with her young husband and been taken by him into the big store where, giving the matter his serious attention, he'd selected the material, for the whole idea had been his.

In poverty they'd married and she'd made do by knitting for him and the children, and helping with the outside work on the farm. It hadn't been easy, but the babies had died young, except for little Henri, so there hadn't been the great expense there was in some families, and they'd managed well, putting aside carefully, a sou here and a sou there, and thus building up their small farm.

It was when Jean sold his first cow that he decided it was time his wife had a Sunday best like the other women. He took her in to town one Saturday, in the donkey-cart, with the cow money in a linen bag sewn inside his shirt. It was a lot of money, too, and he'd insisted on getting the best material available. Madelaine was upset when she heard the price,

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but Jean had pointed out how good the quality was, and how lasting—homespun from the finest yarn. 'It'll last you a lifetime, Madame Dufaille,' the young salesman had assured her.

On their return home they sent for Made-moiselle Céleste, who came over for a couple of nights to make up the garment, cutting and pinning the cloth on Madelaine and stitching in the heavy folded pleats, one flat on another, so that when at last the garment was finished she looked like some beautiful carved medi-evil figure in the tight bodice fitting closely over her full bosom and nipped in at the waist above her wide strong hips and lovely rounded thighs. Jean was enchanted by his smart young wife.

NOW, as Madelaine sat out in the late afternoon sunshine remembering, she sat up suddenly and smiled, for the picture in her mind began to take shape, clearing unexpectedly. As though it had been yesterday, she recalled how she and her husband had walked to church together on the Sunday after her new dress was finished, and how it had been High Mass for Easter, with the church crowded. Once again she seemed to feel the prickly flush of self-consciousness as they entered the little building, and saw in her mind's eye the sparkle of candles flickering in the shadowy chancel, and heard the rustle of interest as the women turned their heads to look at her. Most clearly did she remember those girls of her own age with whom a few years earlier she'd laughed and played, and the sense of satisfaction it had given her to know that some who'd possessed a substantial *dot*, or obtained a better settlement than herself, were among those present that Easter morning, valuing, as she was well aware, her new gown down to the last centime.

Laughing quietly to herself, the old lady smoothed the rag of a skirt, stroking it with her rough brown hand so that it scratched on the stuff like a sparrow's claw, and as she pulled it across her thigh she could feel the leg beneath as the stick of a broom-handle—no flesh now, but skin only, and bent bone...

She stopped laughing as she tried to recall what it was that had spoiled that shining Easter day—something that had happened as they were returning home from Mass. She sat puzzling for a moment, sensing the distasteful flavour of the incident, while its exact nature

escaped her. Then all at once it came to mind.

Halfway along the road they had met Mère Goudin leading in her cow, and, amicably disposed towards the whole world, they had stopped to greet her and pass the time of day.

Once more Madelaine was back in the past, so that every word they'd spoken, each fleeting expression on the old witch's face, even the markings of her ancient cow, were restored to consciousness as clearly as a picture—vivid and precise.

A few words had been spoken, on trivial matters, yet as they'd talked young Madelaine had studied the old woman standing before them in her rusty-black dress, with her angular frame, dry brindled hair scraped back under a stiff lace cap, and had noted the maplelike lines on the parchment skin—'Like a dried-up winter apple,' she'd thought.

Mère Goudin had grumbled on uncharitably, as lonely and embittered women will. She couldn't spare time to go to Mass and show off new dresses, she told them tartly, adding that she hadn't any man, she thanked God, to waste his good money buying gew-gaws for her. '*Oh, là là!*' she'd cackled. '*Oh là, ma petite! Quand tu seras vieille comme moi—vieille desséchée—un peu toquée, sans doute,*' and she'd tapped her head with her forefinger significantly.

It had been as though a cruel wind had sprung up, and Madelaine had seized her husband by the arm to drag him away, crying: 'Hurry now, Jean. We'll be late. *Le déjeuner attend.*'

But all that day and for many days after the old lady's words had haunted her: 'When you are old as I am—dried up—and a little simple, no doubt.' On their way home her heart had thumped irregularly from nervous excitement, and she'd complained: 'Nasty old hag! Fancy her speaking to me like that.' Then, more gently: 'But, Jean, *mon chéri*, one ought to pity her rather. It's sad to be alone, and old, and poor, is it not, Jean? Might we, perhaps, take her some soup for her supper—or a few eggs?'

Jean had laughed loudly at that, 'Madame Goudin poor?' he'd exclaimed. 'Don't I wish I had the half of what that aged miser's got hidden away behind her chimney! *Ma foi, oui*. No need to pity her, *mon chou*.'

His wife had answered him defiantly: 'She is to be pitied for all that, poor ignorant peasant that she is. I'll never be like that—never. Will I, Jean?'

Jean had smiled down at her and pinched her round arm.

NOW Madelaine, remembering the past, stared in front of her, caught up in a dream—or in reality—who can say?

A fat drake, his shiny enamelled head catching the rays of the departing sun, crossed the yard quacking loudly and followed by five brown ducks—all making for the pond under the apple-tree. The birds roused Madelaine and she watched them for a moment, critically, as her mind swung forward into the present again. Then, placing both hands on her knees, she pulled herself to her feet shakily, smoothing out her apron. She thought: 'I'm alone now myself . . . Jean lying out in the cemetery over on the hill . . . and Henri . . .' She'd had no word from their son since the first postcard he'd sent on reaching America, twenty years ago. 'They leave the nest, the little birds,' she thought. 'But who knows where they fly? They fly away forgetting the old one who hatched them out, and fed them . . .' Turning, she walked slowly across the cobblestones and through the open door into the house.

She slid in the bolt as she closed the door behind her, and then, approaching the chimney-place, she drew aside a curtain which covered an alcove in the wall. At the back of this, built into the stone of the house, was a large iron safe, which she opened. Inside this hidden strong-box were stacked a score of hempen bags, each neatly tied and sealed. Methodically the old lady drew out the one nearest to her and staggered with it towards the kitchen-table, where she sat down with a sigh.

Slowly and carefully she began to count out the contents—billets of 1000 francs, gold coins, and bankers' drafts—checking the amounts in a little black notebook. This took her some time, and when she had finished she resealed the bag, replacing it in the safe, which she locked, hiding the key behind a loose stone and drawing the curtain across the alcove once more. As she carried out these operations she smiled contentedly to herself, and began to feel much better—though she couldn't quite

get the thought of Mère Goudin out of her mind. 'I'll go along to the closet,' she said to herself, 'and put away my dress. I must be careful, or it may not last . . .'

By this time it was growing late and dusk had begun to fall, so that the passage lay in deep shadow as she felt her way along, her *pantoufles* making no sound on the worn parquet. Turning the corner at the far end, she saw, moving silently forward to meet her, the figure of an old woman. Madelaine's heart stopped, for she recognised the figure at once, and though the form was only half-visible in the fading light she paused in terror as, staring into her own eyes, she saw the eyes of old Mère Goudin, dead these many years . . .

Just as Madelaine remembered her, the ancient hag was attired in a rusty-black peasant's dress which hung loosely on her bony frame, her dry brindled hair scraped back under a stiff lace cap, and a cunning glint in her small miserly eyes—the same dreadful witch who had jeered at the young girl returning from Mass that Easter Sunday so many years ago.

Catching at her heart, Madelaine shut her eyes, yet she could feel Mère Goudin's sour breath in the narrow passage and hear the words whispered in her ear: '*Quand tu seras vieille comme moi—vieille desséchée—un peu toquée, sans doute.*' Listening, her eyes still closed, she swayed slightly, then, falling with a clatter, she lost consciousness.

THEY told the nuns up at the hospital that it was a wonder the old girl hadn't cracked her head right open on that long mirror which stood at the end of the corridor. The men had found it only that morning in the bedroom, covered with dust and turned face to the wall. They didn't suppose the Dufailles had used a looking-glass in their lives, so, as it was in their way, they'd moved it out into the passage.

Poor Madame Dufaille! She'd buried her old husband that morning and no doubt she was feeling shaky—finding herself alone like that. But she might easily have killed herself, they said, outright.

Strange Lights of the Seas

RONALD CREASEY

CAN you imagine a population of glow-worms or fireflies dense enough to let you read a newspaper at night? The sea has its insects which sometimes emit phosphorous illuminations so fantastic that such is possible.

This phosphorescence appears in several parts of the seas, but probably nowhere does it show so well as in the Persian Gulf. There it may be seen in a few bright patches or streaks—as moving rays of light, as a sheet of silver, or as if the sea itself were on fire.

As a ship steams along during one of these night displays, the wonder can be fully enjoyed from the ship's bows. As the vessel pushes the sea away from itself, the water streams out in bright silver ribbons like an arrowhead attached to the ship. Porpoises, which frequently swim ahead of ships, add very pretty effects as they zigzag and take occasional jumps out of the water with split-second timing. They leave a trail of phosphorous streaks that simply sparkle with dazzling luminosity, each streak being curved to correspond with the porpoises' zigzagging. Just how several porpoises together adjust their speeds and directions and jumps, one to another's, and keep at the same distance ahead of the ship, is itself a wonder which must be seen to be appreciated.

SOMETIMES an officer navigating a ship feels sudden alarm at the sight of a sheet of phosphorous light close ahead. It looks like shoal-water and makes him feel there is not enough time in which to stop the ship and so prevent her from running aground. No matter how many voyages he makes in the area, he never feels quite sure that it is harmless light-giving insects which brighten the sea ahead and not a sudden shallowing of the sea's depth.

On rather more rare occasions the entire

sea as far as the horizon presents an amazingly vivid spectacle as it gleams like liquid silver. The intense glow is thrown back from the ship's paintwork, at times being strong enough to enable one to read a newspaper, while anyone walking along the deck is shown up in clear relief.

If at such a time a breeze springs up at night and ruffles the sea so that there are phosphorescent wave-tips, there is a danger of colliding with other ships, as the sea's brilliance swallows up the other ships' lights.

If a boat is rowed at night in these illuminated waters, the drips from the oars look like diamonds falling into the sea, giving a fairyland scene. Sharks which dart about leave lighted trails like rockets, creating a grand display.

ON rare occasions the sea looks red by day and like a sea afire at night.

One vessel's captain, finding the sea luminous in patches, drew up a bucket of water and found in it a piece of blubber a few inches in length which had a hollow central canal. It gave enough light to show the time by a small clock in a darkened cabin.

In the Persian Gulf, and also off the delta of the river Indus, one sometimes sees phosphorescent circles one inside another. They give the impression of spreading outwards at a tremendous speed, and remind the observer of a field of corn waving in a breeze. The display usually covers an area of about fifty square miles, and the sparkles look like gems dropping into the water. Water drawn in a bucket at such a time reveals nothing unusual to the naked eye.

A similar phenomenon appears in the form of bars of light, regularly spaced about twenty feet apart, rushing across the sea at anything up to a couple of hundred miles an hour.

STRANGE LIGHTS OF THE SEAS

Such lights come to a very sudden ending, but may reappear shortly afterwards.

Another manifestation is in lines of pale-yellow light which move quickly like a wheel's spokes before straightening up to travel parallelly across the sea. The manifestation has been known to appear also above the surface of the sea.

Some shellfish give out clouds of a ghostly-blue light. The fish have been caught in a bucket, and the bucket has then been suf-

ficiently illuminated to show up all the contents.

All of these phenomena, which still puzzle the scientist, make one wonder if such lights exist in the depths of the ocean where the sun's rays cannot penetrate, giving fish which are known to live in the greater depths a lighting system. This itself, however, would give rise to another puzzle: Why does the small angler-fish go fishing with a luminous bait in its habitation more than 3000 feet below the surface of the ocean?

Redundant Branch-Line

*Do you remember the smug little station,
Green and white painted, with one single platform,
The bridge made of ironwork, the neat, clipped box-hedge,
The place-name in pebbles, the gay antirrhinums?*

*I always came hungry to that little station,
Hungry for chocolates from stately red slot-machines,
Only a halfpenny for one bar of chocolate,
Only a halfpenny for gums paregoric.*

*Do you recall now the solitary porter,
Booking-clerk, checkman, signalman, errand-boy,
How he remembered us each summer holiday,
How he never grew greyer or older?*

*How, as we left it, we watched up the valley,
The train climbing slowly, growing tiny and toylike,
Until with the rooks that shammed they were frightened
The last piping whistle we heard at the tunnel?*

*Now, so they tell me, the line is redundant;
No more the two coaches, neat, consequential,
Bustle importantly through the deep valley
Casting smoke shadows across the green meadows.*

*Now, so it seems, there's a bus, smooth and smokeless,
And nobody grows any flowers on the station;
The Station Hotel has lost its white stucco,
While nobody stands at the door in his shirt-sleeves.*

*All, all is altered; the lines have been wrenched up
And my little station is only a depot:
But still as I turn to look up the valley
I see the toy train as it reaches the tunnel,*

*And I lift up my hand, as I used in my playtime,
To wave to my friend bustling down from the junction,
But saying no longer, with careless assurance:
'I'll see you again on your return journey.'*

KENNETH MACGOWAN.



Desert Diplomacy

SEAGULL

'I'M afraid we lost a tent last night, sir,' said the Quartermaster in pained tones. 'Those damned Bedouin again, I'll be bound. Took the whole thing and left two men sleeping peacefully where it had been. Beats me how they manage it.'

'Agreed,' said the Colonel thoughtfully. 'We shall have to do something drastic.'

The battalion was on manoeuvres in the Middle East and we were living in a tented camp out in the desert, twenty miles from the nearest town. Our only neighbours, apart from Brigade Headquarters, were a small group of Bedouin Arabs about a mile down the road. We had few dealings with them, except to drive their numerous children away from the cookhouse, where they hung around all day hoping to pick up a few scraps. Their whole encampment numbered about a hundred, and they were members of the Beni Hassan tribe, who had fought with Lawrence of Arabia. They were true nomads, living in long, low black tents, with only such worldly possessions as they could carry on their camels or drive with them in their wanderings.

We had little doubt that it was these neighbours who were taking full advantage of our unexpected arrival to 'acquire' any articles which might prove either useful or market-

able, and this latest incident had shown how extremely skilled they were at it. It was small wonder that the Quartermaster looked harassed, for this pilfering continued every night despite all our precautions.

THE Colonel finally decided that the best hope might lie in prevention rather than cure, and determined to approach the Bedouin directly to see if some amicable solution could not be found. So the next day two of us set out, accompanied by our Arab interpreter, to pay a social call on the Beni Hassan.

We approached somewhat anxiously, being uncertain what sort of reception to expect, but we were greeted warmly and conducted to meet the Sheikh himself. He was an impressive, white-bearded figure, tall despite a stoop, and with a dignity not to be ignored. He stood awaiting us, leaning on a heavy stick and wrapped in a flowing brown cloak; on his head was his kaffiyeh, with the green band of one who has completed the Haj or pilgrimage to Mecca. We learned later that he carried the title of Guardian of the Hills and that he was alleged to be 137 years old. Certainly he was the undisputed ruler of the tribe, although last winter he had reluctantly

DESERT DIPLOMACY

decided that he was getting just a little too old for this strenuous task, and so had handed over most of his duties to his eldest nephew, aged 83. But he was still keeping a pretty close eye on things, until the youngster had gained experience.

After an elaborate exchange of greetings and compliments we sat down to drink coffee in Arab style, squatting on cushions in the tent. We had studied the correct etiquette and after three rounds gently tilted the cup to show that we had had enough. Conversation was carried on through our interpreter and we learned that we were the first British officers who had been entertained by the tribe, and they did seem genuinely pleased by our gesture in visiting them.

Clearly our hosts had a pretty shrewd idea of the object of our visit, but, of course, the matter was never raised directly by either of us and polite small-talk continued for about half-an-hour. Finally we felt that it really was time to get to business, and so we said to the Sheikh that we had a very small favour to ask him. Receiving a non-committal nod in reply, we then explained that we earnestly desired his assistance in protecting the Queen's property in our camp. It was being pilfered by some low-born common thieves, such as he, of course, would never allow in his illustrious tribe; we felt sure that since he was the renowned Guardian of the Hills and omnipotent through this area he would quickly rid us of these scoundrels and so earn our deep gratitude.

Somewhat to our surprise, this flowery invitation was accepted by the old man without comment, and he assured us that he would suppress these unworthy rogues we spoke of. More than that, he declared that he would undertake to protect our camp against any further raids. We were rather sceptical of this sweeping offer, especially as some of the Sheikh's followers were looking definitely nonplussed and perturbed by his eloquent promises.

We left without any very high hopes, but that very evening we received proof of the old man's sincerity. Our Arab interpreter was returning to camp shortly after dark when he was set upon by a gang of heavily-armed ruffians and given quite a rough handling. Fortunately for him, he suddenly recognised his assailants as his lunchtime hosts and established his identity, whereupon he was offered profuse apologies and escorted into

camp by a bodyguard of twelve Bedouin, who proudly announced themselves as an anti-pilferer patrol, detailed by the Guardian of the Hills.

Still more to our surprise, nothing disappeared from our camp that night, and we did not see any signs of thieves. This happy state of affairs continued for several nights and the Quartermaster actually smiled. We still felt it was too good to last and so it was decided to cement our new alliance with our neighbours by returning their hospitality and inviting them to our camp.

AN indignant Mess Secretary was ordered to produce an Arab meal for twenty and told that it would have to be on the floor, as our guests did not use tables or chairs. He rose to the occasion nobly in the end by ordering a complete roast-sheep in Amman, twenty miles away, and then heating it up again in the Mess.

Our invitation was accepted and one evening the Guardian of the Hills appeared outside the Mess tent with his nephew and five elders. They were in their best robes, but still looked a pretty fierce and ruffianly lot, with pistols and long knives in their belts and rifles and bandoliers slung over their shoulders. Our gentle hints that they might like to abandon their armaments before going in to dinner were firmly declined. So after long salutations and handshakes all round we sat down to drink coffee while the Battalion drums and fifes played on the parade-ground in front of us.

One officer, thinking to help the conversation along, admired the dagger worn by his Arab neighbour, whereupon, in accordance with Arab custom, it was promptly pressed upon him as a gift, to his great embarrassment. However, amends were duly made later on by the presentation of a box of cartridges in return. The Colonel also found himself in some difficulty on this point of etiquette when the Guardian of the Hills exclaimed fervently: 'How wonderful are your drummers, by Allah. I would that I could have a band like that.' Unwilling to detail Her Majesty's troops to join the ranks of the Beni Hassan the Colonel could only change the conversation hurriedly to a discussion on camels.

Dinner was then announced, but was delayed slightly while three members of the party laid their cloaks down on the parade-

CHAMBERS'S JOURNAL

ground and prostrated themselves towards Mecca to say their evening prayers.

Prayers completed, we went in to dinner, which consisted of the sheep now cut up into joints and lying on top of a huge pile of rice. All round this central tray were dishes of pigeon, quail, liver, vegetables, fruits, nuts, and spices to flavour the main dish. In the background stood the Mess waiters, watching in astonishment as the Colonel and senior officers of the Battalion squatted awkwardly on cushions on the floor beside their unusual guests. We ate, of course, in Arab style, pulling lumps of hot meat off the carcass with our fingers, mixing them into a ball with the sticky rice, and conveying as much of it as possible to our mouths. Our guests took full advantage of their marked superiority at this art to make a very good meal and conversation soon lapsed. The silence was broken only by appreciative rumblings and belches from the visitors; we did not indulge in this, as the Colonel evidently did not feel that his position as host demanded it, and none of his officers liked to take the initiative ahead of him.

At last everyone sat back and we washed our hands in bowls of water brought round to us, before returning to the anteroom for more coffee. Conversation flowed more freely now, but consisted chiefly of an interminable exchange of elaborate compliments. It was really a sort of party game to see who could think up the most extravagant bouquet, and it went something like this:

Arab Elder. 'We are more honoured than we can say at your wonderful hospitality to us humble and undeserving Bedouin. We are so

happy to have you in our poor country. Long may you be among us.'

Colonel. 'We are only so pleased that the illustrious Beni Hassan should visit our camp. May your sheep multiply and your tribe prosper.'

Arab Elder. 'We do not know how long we shall live, but as long as that may be, we shall remember this happy day. After that, our children will recall it. Hurrah for your Queen and her soldiers.'

The Guardian of the Hills did not join in this exchange as he was very drowsy after his large meal. But he awoke periodically to add his personal bouquet to the Commanding Officer. His best effort was to exclaim how much he wished he could stay with us always, even when we went back to England. On being told that he would never get a whole lamb for supper in England, he patted the Colonel on the cheek, remarking: 'Ah, never mind that. I am happy just to look on your face.' This defeated the Colonel completely, but it did not matter, as the old man had dozed off again before a reply was called for.

Finally both sides ran out of compliments, and the party broke up with fervent handshakes all round. Loudly protesting their eternal friendship and loyalty to us, our guests piled into the back of a truck we had provided for their return and were driven off, singing gaily and firing *feux de joie* through the canopy.

We never lost another item from our camp due to pilfering, but by a strange coincidence, that very night, Brigade Headquarters just down the road, lost a complete Officers' Mess tent with most of its contents.

The Years Between

*The ancient contours of the pines
Against a sky of fadeless hue
Unchanged remain. Unageing lines
Still silhouette yon mountain blue—
The change is but in me and you.*

*On daisied banks that scatter light
The frolic winds are still at play;
And August clouds of dazzling white
Crowd in the old, familiar way,
And dim our eyes of yesterday.*

*And summer still with azure eyes
Laughs through her leafy lids of green;
But in our own a shadow lies
To vex the heart with visions seen,
Dim-curtained now by years between.*

HUGH QUINN.

Science at Your Service

TENDERISED MEAT?

ALMOST a decade and a half of meat rationing and meat purchase without much choice has led to a new and not very pleasing word, 'tenderise.' It is perhaps preferable, however, to an equally likely improvisation, 'detoughen,' from which we have seemingly been spared. On the theory that a certain amount of mechanical fracturing and weakening of meat cells will assist the subsequent cooking process, several tenderising appliances have appeared on the kitchen equipment market. In other countries much longer accustomed than Britain to poor quality meat this mechanical pre-cooking treatment is nothing new. Whether these appliances are effective enough to justify their introduction to the kitchen must remain a matter of opinion, for differences in the texture of cooked foods are as difficult to assess accurately as differences in flavour. On the whole, however, evidence seems emphatically in their favour.

A new household tenderiser, made by a company which developed a pre-war commercial-sized appliance on the same principle, consists of forty-eight stainless steel blades held in a plastics case. The blades are in six 8-bladed sections shaped rather like combs. When held together in a plastics holder, the blades are pressed into either side of steaks or chops for about half-a-minute. This treatment cuts and weakens sinew and fibres, but does not cause loss of the meat's natural fluids. Good quality meat will need a shorter cooking-time for tenderness to be achieved; poorer quality meat will become more tender than would be possible by cooking treatment alone.

The price of the appliance is moderate, especially when set against the price of meat itself. Even if purchase is regarded as a somewhat experimental investment, the outlay is not large. The blades being in six separate sections, they can be easily washed, an advantage not as readily offered by smaller tenderising appliances whose blades are closely packed in a single unit.

SOIL SHREDDING

A new machine for commercial growers and nurserymen should greatly reduce the time and work usually required for preparing potting and glasshouse-bed soils. It will handle turf, loam, peat-moss, bulb-fibre, and other soil-making materials. The raw material is shovelled into a chute at the side. It is shredded and mixed by a four-bladed rotor, and size-grading is controlled by an adjustable mesh screen composed of independently-sprung wires spaced at half-inch intervals; these spacings can be adjusted in half-inch steps. The standard model is 28 inches wide, 30 inches high, and 18 inches deep, and is supplied with a pulley for belt-drive by electric-motor or petrol-engine. The shredded and mixed soil is delivered at the front of the machine. An output of from 2 to 2½ tons per hour with one man working the machine is claimed, the variation being due to the natural variation in raw material. Where a large quantity of soil has to be prepared for special planting tasks, and especially when, as is usual, this operation is seasonal, a machine of this type should speedily recover its cost in labour economy.

OIL FOR TROUBLED FITTINGS

A new easing-oil for releasing metal parts that have become rusted or otherwise too tightly inter-attached has recently been marketed by one of the leading oil companies. It is recommended for such tasks as freeing rusted nuts and bolts, taps and pipe joints, rusted-in screws, etc. The oil is composed of graphite, still even in this synthetic age one of the supreme lubricants, and liquids of high penetrative and spreading power. Owing to the graphite content, the oil is black and must not be used where staining would cause damage; however, this is not often a problem associated with the basic problem of releasing tight and aged fittings. The new easing-oil is sold in 8-ounce spout-pouring tins at a low price. It should not be used as a general purpose lubricating-oil but only for its specific task.

CHAMBERS'S JOURNAL

HOBBY TOOL-KIT

A wide-ranged set of miniature tools used for the small-scale type of constructional work generally described as hobbycraft seems remarkably cheap and enterprising. The tools are housed in a pocketbook-sized wallet made of leather-grained blue plastic material. They include a precision cutter, a set of four blades, three round files, three chisels, a whittling blade, and a keyhole-saw blade; all these can be fitted into the same handle. There is also a saw frame with two 6-inch blades to fit, one of hacksaw type and the other a tension-filing blade. All the tools are made, as is the wallet, by a well-known manufacturer of this type of appliance. The wallet has pockets or loop-clips to hold all the tools tidily and has a press-stud for closing.

A DUAL-COLOUR LAMP

A new electric-lamp whose light-colour can be changed at the turn of a switch is now being developed. The lamp is of ordinary two-filament incandescent principle, but it is internally divided into two parts of different colours; a screen separating the two sections prevents colour mixing. Any colour pairing can be made; also, the two sections can operate at differing wattages. There would seem to be a number of uses for lamps of this kind, notably as industrial safety-signals, electric-signs, and motor-vehicle lights, while numerous applications present themselves in the home. It is not anticipated that lamps of this dual nature will be much more expensive than normal single-colour or single-intensity lamps.

A PLASTICS SINK, BASIN, AND BATH TRAP

The remarkable and versatile plastic material made by polymerising ethylene—polythene—is now used for making sink, basin, and bath trap units. This material resists frost damage, corrosion, and surface attack by detergents or other washing chemicals. The internal surfaces can be produced with a very smooth finish, which minimises any frictional tendency to encourage the collection of grease or refuse particles. The design of the new trap incorporates a hand-removable cleaning-cap that is accessible even when the trap is fixed to a bath; also, in fitting to a bath, the cutting away of floorboards is unnecessary. The only colour initially available is black, but it is expected that the polythene traps will later be available in a range of colours.

A TURF MULTI-MACHINE

A new turf or lawn appliance enables all mechanical tasks except that of cutting to be operated. The hand frame is a wheeled chassis for pulling or pushing, and the implements for different operations can be individually attached. These are a scarifier with seventy-two spring steel tines and also two whalebone brushes; an aerator with 4-inch slitting, hollow, and round pointed tines, a roller cover, and removable weights; a spiker-slitter, which can be supplied either 36 or 24 inches wide; and a light ($1\frac{1}{2}$ cwt) roller, which is 54 inches wide and provided with a whalebone brush-scraper.

The machine can be used for each implement in four working positions, for light or heavy pushing, and for light or loaded pulling. Pressure is controllable from the handle. For the small or medium-sized garden lawn the cost of the complete outfit might perhaps be regarded as an expensive outlay in relation to the amount of work each of the implements would do per year; but for larger areas of lawn or turf—estate lawns, sports grounds, etc.—this well-designed multi-purpose machine is certainly an economic proposition.

FINGERPRINT PROGRESS

An improvement upon the powder-dusting method for developing fingerprint impressions has been reported from Sweden. Various powders are used to-day, choice being largely determined by the nature of the surface on which prints are suspected to exist. A few solutions have been suggested in the past in place of powders, notably silver nitrate solution, anthracene, and a solution of mixed osmic and chromic acids. However, these solution methods have found application in special cases of difficulty rather than in criminological work generally. The new Swedish development is based upon the occurrence of amino-acids in perspiration. Prints are brought out by spraying the site with a weak solution of ninhydrin in acetone, followed by oven-heating at a moderate temperature (below steam temperature) for a few minutes. A chemical reaction between the solution and the amino-acids prints the fingertip impressions. The method has been successfully used to develop fingerprints on paper that has not been touched by hand for more than ten years. It seems more than ever necessary for those with criminal tendencies to wear gloves.

SCIENCE AT YOUR SERVICE

AN EGGCUP-PLATE

The ability of plastic materials to be one-piece moulded has stimulated design in many fields, and an interesting new example now on the market is a one-piece eggcup and plate, which is claimed to be impossible to tip over, and is in any case also virtually unbreakable. It should be of particular usefulness for young children. The price is low and the eggcup-plate can be obtained in white or a range of colours.

NEW DRILL FOR DENTISTS?

Scientists at the United States Naval Medical Research Institute are developing a new method of tooth-drilling that may eventually remove one of the last remaining fear-complexes associated with visits to dentists. This method uses ultrasonic sound-waves to drill the necessary cavities. The noise, vibration, pressure, and heat of mechanical drilling would be eliminated, and it is these features that make many people apprehensive. The stage of progress so far reported is the construction of an easily-manipulated hand instrument, and this has successfully drilled clean and precise holes in extracted teeth, glass, and other very hard surfaces. Tests have yet to be made on living teeth, *in situ*, but the prospects of success are judged to be very favourable.

ANOTHER MAP-MEASURER

In July 1953 we drew attention to a neat map-measuring instrument whose small wheel could be run along map distances, thereby moving a pointer which indicated on the dial of the instrument the corresponding distances in miles, kilometres, etc. The first model was entirely a map-measurer, with both sides of the dial used for converting map distances into the actual journey distances they represented. The use of both dial faces allowed a wide range of conversions, not only inches into miles and centimetres into kilometres, but inches into nautical miles and kilometres, and so on. The introduction of this appliance has been sufficiently successful for a new model now to be offered. In this, only one

dial face acts as a map-measurer, and this allows conversion of inches into miles and centimetres into kilometres, a sufficient range for the majority of map-reading requirements; the other face is an independent compass, which should be a most valuable adjunct for walkers and touring motorists.

The new model is no less a precision instrument than the first, has the same slim and pocket-sized advantage, and is likewise chromium-plated. We particularly emphasised the low cost of the former map-measurer, and it seems equally justifiable to point out that the new model costs only one shilling more, a commendably minute difference considering a first-class compass is incorporated.

KITCHEN UNITS

What is now recognised as the unit system for household and office furniture first became well known with bookcases, and in more recent years it has become an increasingly popular trend with most forms of furniture. Its advantage is obvious enough, for the equipment of a home can be added to from time to time without loss of conformity and often, when the added unit-size fits the old, with minimum loss of free space. It may not be as widely known that a British company has been producing unit kitchen equipment for a number of years, so that an initial modern sink unit can be uniformly expanded as the family size increases or as the family income permits. A full range of sink, base, and wall units is designed to British Standards Specification in multiple widths of 21 inches. Cabinets are made from zinc-coated steel sheets which are completely anti-corrosive; the finish is in hard gloss enamel in cream, white, and pastel green or blue. The recessed ground plinths are finished in black vitreous enamel, with special resistance to scratching through being knocked by the feet or by floor-washing equipment. Sinks are made from stainless steel and housed similarly to the cabinet units. Various sink-cabinet unit designs are available. The tidy addition of an extra unit to units already fixed is quite simply achieved with filler strips.

TO CORRESPONDENTS who wish fuller information regarding new inventions, publications, etc. mentioned here, addresses will be furnished, when possible, if (and only if) a stamped addressed envelope or postcard for a reply be sent to the Editor, *Chambers's Journal*, 11 Thistle Street, Edinburgh. To avoid delays, requests of this kind from correspondents abroad will be forwarded to the manufacturer or agent if stamps, postal orders, or imperial or international reply coupons are enclosed for the purpose. The issue of the *Journal* and the heading of the paragraph in which the object of inquiry is described should be given in order to facilitate reference.

August Jobs

NOW is the time to have a good look round the garden and note the jobs that need doing. There are the strawberries to be planted this month. Choose a good variety, like Royal Sovereign, Mallings 40. Put the plants in 18 inches apart, with 2 feet between the rows. Strawberries do love land that is rich in humus, so fork in plenty of well-rotted compost, at a bucketful to the square yard, and add a fish-manure at 4 to 5 ounces to the square yard. If you have not got any compost of your own, then use damped sedge-peat instead. It should be soaked thoroughly before use. When making the holes, use a trowel for the purpose, and make sure the holes are big enough to receive the roots spread out. Whatever you do, have no root-bunching. The planting should be very firm, with the crown of the strawberry at soil-level.

Have a look next at your potatoes. Keep spraying the late varieties with Bordeaux mixture so as to prevent their being badly attacked by blight. Do not forget to cover the undersurfaces of the leaves as well as the upper surfaces. If you have by any chance had an attack of blight—maybe because you could not get the spraying done in time—cut off the potato-tops before you dig the tubers up, and that will at least prevent the spores from dropping on to the tubers, causing them later to go rotten in store. I have often known of cases where potatoes have got infected at digging time, simply because the gardener did not realise that the spores from diseased leaves can easily be distributed in this way. Any tops that have been cut off can be put on to the compost-heap. They will rot down even if they are diseased. If you make your compost properly, and use an activator like poultry-manure or sulphate of ammonia, considerable heat will be engendered in the heap—and in consequence the disease spores will be killed. Do remember, though, that a compost-heap is not a rubbish-heap: it must be properly made, so that the organic matter rots down and is ready to dig into the soil.

What about earthing up the celery? Remember when doing this to wrap the stems round with brown-paper first, then putting

ties round to keep this in position. Or you can grip the stems tightly with one hand and draw the earth up to them with the other. The most important thing is not to let any soil get in between the stalks. It may be that you have been infested with slugs in your garden. In this case mix finely-powdered copper sulphate with hydrated lime and apply this all over the ground before earthing, at 1 ounce to the square yard. It needs no more than the tiniest speck of copper sulphate to kill a slug!

Now have a look at your onions. Have you any that show a tendency to become thick-necked or bull-necked, as we sometimes call it? This can be prevented by bending over the top. This also helps to ripen the bulbs better. Once the tops have been bent over, it is advisable not to feed any more. You can, however, go on feeding the leeks. This is very necessary if you want fine specimens. Try one of the bottled liquid manures: these are ideal at this time of the year. Leeks should be given a feed once every ten days with the diluted solution.

Have you ever tried corn-salad or lamb's-lettuce, as it is sometimes named? Maybe you have not even heard of it. I would recommend this crop, as it comes in so useful. It grows very much like a large forget-me-not plant and you can use the leaves in the winter-time for salad purposes. You can either pull up a whole plant, cut off the roots, and then use the top in the salad-bowl, or, as an alternative, pull off a number of leaves from each plant week by week. In this latter way you keep the plants cropping over a much longer period. Get hold of some seed right away, choose a nice sunny border, and sow now. The ground should be forked over first, with finely-divided compost or damped sedge-peat added at a bucketful to the square yard. Give a sprinkling of fish-manure at the same time, at 4 to 5 ounces to the square yard.

I shall be glad to help readers with their gardening problems. Write to me through the Editor, kindly enclosing a stamped addressed envelope for the reply.

W. E. SHEWELL-COOPER, M.B.E., N.D.H.

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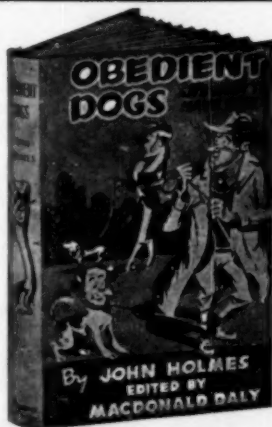
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CHAMBERS'S DICTIONARY CROSSWORD No. 3 (July)

SOLUTION

ACROSS: 1, Baudrons; 5, Cotyle; 9, Ethercap; 10, Obolus; 11, Clusters (anag.); 13, Flurry; 14, Ape; 16, Quinze; 19, Echinus (hidden); 20, Kebbie (ebb, decline); 21, Age; 26, Anight (anag.); 27, Euphoria; 28, Unowed (anag.); 29, Mortices (anag.); Liking (*P. Lost*, xi, 587); 31, Penneech.

DOWN: 1, Blench; 2, Uphaud; 3, Rarity; 4, Neaera (*Lycidas*, 69); 6, Orbilius; 7, Yoldring; 8, Eustyles; 12, Springe (*Silas Marner*, xi); 15, Ace; 16, Qua; 17, Skua-gull; 18, Abricock; 19, Eighteen; 22, Europe; 23, Chiton; 24, Crèche; 25, Massah (*Exodus*, xvii, 7).



OBEDIENT DOGS

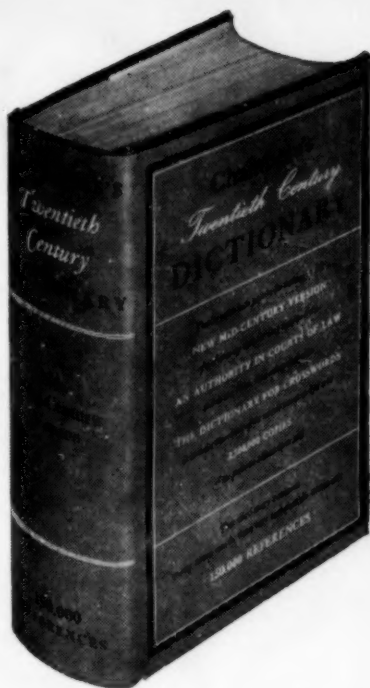
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